



 United Technologies

PRODUCT SELECTION DATA



- EASY INSTALLATION
- CENTRAL AIR DIFFUSION
- LOW ENERGY CONSUMPTION
- IMPROVED COMFORT
- ELEGANT AIR INLET GRILLE
- EXTREMELY QUIET OPERATION

Hydronic Cassette Fan Coil Units

42GW

IDROFAN


42GW

Nominal cooling capacity 1.5-8.7 kW

Nominal heating capacity 1.3-11.6 kW

The new Carrier Idrofan cassette 42GW_AC/LEC offers a modern solution for a wide variety of small and medium-sized commercial and residential applications. It is ideally suited for large offices, shops, restaurants and bars, hotel receptions, meeting rooms, banks, laboratories, showrooms, etc.

The new product series incorporates innovative technologies, resulting in a product that is easy to select with fast, simple and economical system installation.

Features

- The 42GW_AC is available with a new-generation three speed AC motor. The 42GW_LEC is available with a variable-speed Low Energy Consumption EC motor.
- The 42GW is normally installed in suspended ceilings and offers two, three or four way air distribution. The units maintain precise temperature and humidity conditions preventing draughts and stale air zones.
- The elegant air inlet grille blends aesthetically with any room decor.
- The Carrier hydronic cassette is available in six sizes suitable for a wide range of applications, with air flows from 100 to 402 l/s (360 to 1450 m³/h). The Idrofan cassette offers an ultra-low-noise solution for applications where a low noise level is the most important selection parameter.

General features

- The low-profile 42GW is light and easy to install. The small chassis fits neatly with standard ceiling tiles and is simple to install wherever it is needed.
- Four-way air distribution gives individual comfort while for localised control each diffuser may be adjusted or even shut down completely.
- Integrated, factory-mounted cooling and heating coils, two-pipe or two-pipe with electric heater, and four-pipe applications.

Designed for silence

- The 42GW units were designed for extremely quiet operation with sound levels that set new comfort standards for buildings. The unique Carrier design of the centrifugal fan ensures extra-quiet operation.
- The new fan/motor assembly design ensures whisper-quiet operation, two times less than the previous generation. Particular attention has been given to the low fan speed.
- The special design of the diffuser ensures rapid blending of the supply and room air. Conditioned air is directed along the ceiling then evenly distributed throughout the room. Return air enters the cassette unit through a large grille. It is then cleaned by an easily removable, washable synthetic filter, treated and recirculated.

Motors

- The Idrofan cassette is available with a three-speed AC motor, with ultra-low noise levels to make it one of the quietest cassettes on the market.
- The Idrofan cassette is also available with variable-speed LEC (Low Energy Consumption) EC motors, that meet the new building energy performance objectives. The LEC solution enhances unit performance offering:
 - Reduced energy costs - the LEC motor reduces cassette power consumption by 50 to 75%. The LEC option meets the new building energy management regulations.
 - Improved comfort - the LEC motor with variable fan speed reduces operating noise levels compared to multi-speed fans, offering ultra-quiet air flow down to very low operating levels. With the NTC controller, a maximum fan speed can be set to allow better sound level management.
 - Maximum flexibility - auto-adaptive air flow rate adjustment from 0 to 100% ensures perfect cooling and heating conditions in the room.
 - Extended life time - LEC motors with brushless technology use a lower fan motor temperature for extended operating life.

Filters

- The standard filter for the Idrofan cassette range has a pleated filtration surface, resulting in a 87% larger surface than a conventional filter, with the following additional advantages:
 - Lower air flow per unit area, resulting in lower pressure drop and reduced noise level.
 - The average interval between filter cleaning is three times longer, compared to standard filters.
 - The filter material is polypropylene and the grade is EU1.
- In the Idrofan cassette range the filter is located inside the grille of the unit. Cleaning cannot be easier: the filter can be manually unclipped from the grille support. The filter frame is pulled down and the filter can then be removed easily. Re-assembly is just as easy, reversing the sequence. Washable filters are supplied as standard.



Drain pump

- High-performance autonomous condensate drain pump encased in a special sound-insulating material for improved fast and quiet condensate removal.
- The main Idrofan cassette drain pan has been improved using the latest composite material for increased noise absorption, easier cleaning and coil drain water transfer to the drain pump.

Control box

- All units are equipped with a control box containing the terminal blocks. The box is positioned on the outside of the unit with a fuse for unit and control protection. The control box panel can easily be opened by simply removing one fixing screw. For wiring connection details, please refer to the appropriate wiring diagrams.



Carrier controller range

- The Idrofan cassette is available with the complete range of Carrier controllers. Several tests ensure easy installation. The number of available controllers offers more and enhanced features, and easy selection according to application needs.

Electronic thermostat A-B-C-D types

- Carrier electronic thermostat range is available for all Carrier hydronic terminals ranges:
 - Type A: Two-pipe application with AC motors
 - Type B: Four-pipe or two-pipe applications with electric heaters with AC motors
 - Type C: Two-pipe application with EC motors
 - Type D: Four-pipe or two-pipe applications with electric heaters with EC motors
- The thermostat for FCU with EC motors option is managing 3 configurable discrete speeds through 0-10 V signal.
- The thermostats have an elegant square shape with a coaxial knob to set room temperature and 3 buttons to set up fan speed, cooling or heating mode, and On/Off, as desired by the customer.
- Wall-mounted controls are easily and discreetly integrated in any room environment.

- The electronic thermostats set range is from 10 °C to 30 °C with the possibility to limit the temperature in public buildings where low energy consumption is a key requirement via a dip-switch inside the control (Cooling range 23 °C/30 °C, heating range 10 °C/21 °C).

The following Features are available as setting:

- **Auto fan:** The fan speed is automatically set by the control; when the room temperature is far from the set point, high fan speed is selected. As the room temperature approaches the desired value, the fan speed decreases until the minimum speed is reached.
- **Automatic changeover:** Automatic changeover from the cooling to heating mode, based on the water temperature, ensures that the ideal room temperature is maintained.
- **Remote changeover:** Automatic changeover from cooling to heating mode, based on the remote signal from the monitoring system.
- **Warm and cold draught protection:** This feature stops the fan when the set point condition is satisfied and the water temperature is too low or too high, ensuring that air that is too cold or too warm does not cause discomfort to the room occupants.
- **Air sensor:** This is unit-mounted – if the control is wall mounted, a second air sensor located in the control can be used for fine tuning of the desired room temperature.
- **Frost protection:** This function ensures that the room temperature is kept above a minimum level. If the unit is in off mode, and the room temperature drops below 7 °C, frost protection is enabled and the unit operates in heating mode until the temperature rises above 9 °C. At this point the unit is switched off again.
- **Booster heating management optimization (available with electric heater option):** If the water temperature is below 30 °C the system will work in the heat demand mode and the electric heater will be the only available heating source. If the water temperature is above 35 °C the system will work in the booster heating mode, energising the water valve and electric heater together. The booster heating function will be deactivated if the water temperature is above 45 °C (the electric heater will be de-energised).

- **Energy saving:** This feature allows saving energy when the room is unoccupied, without the need to switch off the unit. When the energy-saving button is pressed, the actual set point will be modified as follows, without changing the position of the set point selection knob:
 - Cooling mode: Set point raised by 4 °C
 - Heating mode: Set point lowered by 4 °C
 The unit will resume normal operation, once the energy saving button is pressed again.

- **LED intensity:** For offices or light commercial applications, 10 seconds after the latest use of the user interface, all the necessary LEDs are lighted on at a reduced intensity. As soon as the user touches again the user interface, LED have to come back to normal light. In order not to disturb hotels customers, the thermostat can be configured from Night Mode to Dark Mode: 10 seconds after the latest use of user interface, all the LEDs are switched off. As soon as the user touches again the user interface, LEDs of the current condition are switched on with normal light.

- **Air sampling:** If no fan request is made and the Air sampling jumper is in ON position, the control performs the Air sampling function: the air is moved in the room, thermal stratification is reduced, ensuring a more reliable ambient temperature reading.

- **Continuous fan:** If there is no fan request and the Continuous fan jumper is in ON position, the control selects fan speed Low, Medium or High according to the fan-speed selection, regardless of thermal station conditions. If the fan is controlled in Auto fan mode and the control is not in the demand phase, the fan is permanently activated at Low speed.

- **External contact:** A high voltage input signal for external contact is present. If the external contact is activated, device behaviour depends on its configuration on site:
 - Presence detection (empty room with hotel door card), Energy saving mode is activated, internal temperature is raised by 4 °C in cooling mode and reduced by 4 °C in heating mode.
 - Window Contact: During OFF mode (window open), all outputs are disconnected (fan, valves, etc.) and only the frost protection function is active if it has been enabled by its corresponding dip-switch.

- **Master/Slave control:**

- Thermostat type A_AC and B_AC: the Control Board for grouping accessory (42N9006) is allowing fan speed relay only (water valves have to be wired/relayed separately) up to 300 units with control on Air temperature (no water valve), or 10 units 2 pipe with water control, or 5 units 4 pipe with water control
- Thermostat type C_EC and D_EC: The Thermostat EC motor version can control up to 10 LEC units by wiring in parallel the analogue 0-10 two-wires output signal (water valves have to be wired/relayed separately).

HDB (Hydronic Dual Board)

- This electronic thermostat allows master/slave operation. The master unit can manage up to 15 slave units. This controller can be used with a wall-mounted user interface or a remote end user control.

NTC controller

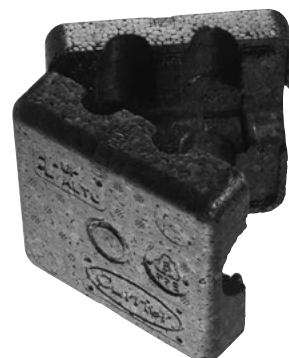
- This is a communicating PID controller, combining energy saving algorithms and full control function solutions, compatible with the Aquasmart Evolution system package.
- The NTC controller can manage the EC motor option, and combines energy savings with optimised comfort.

WTC Controller

- Open Communication protocol BACnet or LON
- Communication PID controller
- Large range of user interfaces wall mounted or remote
- Manage the motorized louvers of the grill in manual or automatic
- Manage the EC motor to optimise the comfort
- Manage a CO₂ sensor to improve Air Quality
- Optional Light and/or Blinds management modules from same user interface
- Large range of sensors (light, presence, etc.)

Valve options

- Valve body: both the two-way or four-way (three-way with integrated bypass) valve options are factory-fitted and tested. The chilled-water valves are fully insulated within a moulded insulating shell, preventing condensation on the valve body. This new shell reduces the complexity of the offer and prevents water leakage risk. Valves are factory-fitted on the unit side.



Moulded valve insulating shell

- Valve actuators: a wide choice of actuators is available with two or four-way valve bodies to offer the right solution for any controller type and customer requirement, from on/off to proportional types, with either 230 V or 24 V power supply:
 - On/off 230 V actuator
 - On/off 24 V actuator
 - Floating 3-point 230 V actuator
 - Floating 3-point 24 V actuator
- When combined with LEC motors and the NTC controller, floating three-point 230-V actuators are recommended to increase energy savings and enhance comfort.

Auxiliary drain pan

- An auxiliary drain pan is available as an accessory if the water valves, stop valves or balancing valves are customer-supplied. The auxiliary drain pan is not required with Carrier factory-fitted water valves, as they are factory-supplied with the valve body insulated (moulded insulating shell) to prevent condensation.



Auxiliary drain pan for compact 42GW_S/E 200/209, 300/309, 400/409 units



Auxiliary drain pan for large 42GW_S/E 500/509, 600/609, 701/709 units

Electric heater option

- Electric heater option is available only with 2-pipe coil versions. One heating capacity is available per Idrofan cassette size, factory-fitted to ensure safe and reliable operation.

Fresh air inlet option

- All units have connections for fresh air ducts that can considerably improve indoor air quality while fresh air volume is managed by the CO₂ sensor through NTC control.
- The fresh air flow must be less than 10% of the total air flow, to avoid operating problems and excessive noise. For higher air flow a primary air kit is available that uses the pre-punched hole for air ducting to an adjacent room and a baffle so that the fresh air is introduced into the room through a diffuser.

Supply of conditioned air duct to an adjacent room

- This option allows supply of conditioned air to a room located close to the Idrofan cassette through an air duct (customer-supplied). If this option is used, the outlet corresponding to the duct must be closed, using the air supply outlet obstruction kit provided. The kit cannot be used in units equipped with electric heater. An air inlet grille must be fitted (if possible near the floor) between the air-conditioned room (where the unit is situated) and the adjacent room or, alternatively, the door must be undercut.
- The duct lengths can be calculated in accordance with the “air distribution to an adjacent room” diagram in the IOM, also taking into account the pressure drop through air diffusers and fresh air filters.

Serviceability

- All the key components (motors, fans and drain pump) are accessible from the bottom by simply removing the grille. These components can be removed without disturbing the other components or any surrounding ceiling tiles.

Physical and electrical data of AC motor units

42GW		200C			300C			400C			500C			600C			701C		
Coil type		2 pipes			2 pipes			2 pipes			2 pipes			2 pipes			2 pipes		
Fan speed*		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air flow	l/s	183	125	100	204	140	89	249	173	134	272	199	147	321	229	139	402	299	166
Cooling mode																			
Total cooling capacity	kW	2,39	1,78	1,55	4,02	2,89	1,88	4,74	3,52	2,8	6,1	4,45	3,36	7,22	5,49	3,71	8,67	6,53	4,06
Sensible cooling capacity	kW	2,01	1,5	1,3	3,07	2,19	1,42	3,67	2,7	2,1	4,5	3,37	2,53	5,46	4,09	2,69	6,4	4,9	2,99
Water flow rate	l/s	0,11	0,09	0,08	0,19	0,14	0,09	0,23	0,17	0,13	0,29	0,21	0,16	0,34	0,26	0,18	0,41	0,31	0,19
	l/h	410	310	270	690	500	320	810	600	480	1050	760	580	1240	940	640	1490	1120	700
Water pressure drop	kPa	10	5	4	14	7	3	18	10	6	22	12	7	11	6	3	20	12	5
Heating mode																			
Heating capacity	kW	3,2	2,5	2,2	4,53	3,72	2,32	6,2	4,61	3,7	8,07	5,97	4,48	9,99	7,4	4,61	11,7	9,3	5,21
Water pressure drop	kPa	8	5	4	13	7	3	14	8	5	17	10	6	10	6	3	18	11	5
Water content	l	0,55			1,1			1,1			1,6			2,4			2,4		
Sound power level	dB(A)	49	40	36	53	44	35	57	48	42	49	40	35	54	46	38	59	52	40
Sound pressure level**	dB(A)	40	31	27	44	35	26	48	39	33	40	31	26	45	37	29	50	43	31
NR level**		35	27	23	39	30	20	43	34	28	35	26	21	40	32	22	45	38	25
Power input	W	58	35	25	58	34	17	99	58	38	66	41	28	88	61	34	125	92	44
Current input	A	0,27	0,17	0,12	0,24	0,14	0,07	0,41	0,24	0,16	0,30	0,17	0,12	0,46	0,27	0,14	0,63	0,41	0,19
Eurovent energy class	D/D				C/C			D/D			C/C			C/C			C/C		
FCEER/FCCOP																			
Electric heater (high capacity)	W	1500			2500			2500			3000			3000			3000		
Current input (high capacity)	A	6,3			10,4			10,4			12,5			12,5			12,5		
Connection diameter	in	3/4 gas			3/4 gas			3/4 gas			1 gas			1 gas			1 gas		
Drain pipe connection outside diameter	mm	16			16			16			16			16			16		
Unit net weight	kg	14,8			16,5			16,5			37			39,6			39,6		
Grille weight	kg	3			3			3			5			5			5		

42GW		200D			300D			400D			600D			701D		
Coil type		4 pipes			4 pipes			4 pipes			4 pipes			4 pipes		
Fan speed*		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air flow	l/s	183	125	100	204	140	89	249	173	134	321	229	139	402	299	166
Cooling mode																
Total cooling capacity	kW	2	1,5	1,3	3,4	2,7	2	4,05	3,24	2,57	6,67	4,99	2,99	7,61	6,06	3,19
Sensible cooling capacity	kW	1,87	1,4	1,19	2,68	2,09	1,5	3,35	2,61	2,05	5,1	3,8	2,25	6,01	4,73	2,4
Water flow rate	l/s	0,10	0,07	0,06	0,17	0,13	0,10	0,20	0,16	0,12	0,32	0,24	0,14	0,39	0,32	0,18
	l/h	350	260	230	580	460	340	700	560	440	1140	860	510	1310	1040	550
Water pressure drop	kPa	13	8	6	11	7	4	15	10	6	24	14	5	30	20	6
Water content	l	0,4			1,1			1,1			2,4			2,4		
Heating mode																
Heating capacity	kW	1,9	1,44	1,24	6,37	5,1	3,61	6,81	5,81	5,01	11,5	8,9	6,01	14,61	11,5	7,31
Water flow rate	l/s	0,05	0,04	0,03	0,15	0,12	0,09	0,16	0,14	0,12	0,27	0,21	0,14	0,35	0,27	0,17
	l/h	170	130	110	548	439	310	585	499	430	989	765	516	1247	989	628
Water pressure drop	kPa	35	21	16	25	17	9	29	22	17	13	9	4	20	13	6
Water content	l	0,1			0,6			0,6			1,2			1,2		
Sound power level	dB(A)	49	40	36	53	44	35	57	48	42	54	46	38	59	52	40
Sound pressure level**	dB(A)	40	31	27	44	35	26	48	39	33	45	37	29	50	43	31
NR level **		35	27	23	39	30	20	43	34	28	40	32	22	45	38	25
Power input	W	58	35	25	58	34	17	99	58	38	88	61	34	125	92	44
Current input	A	0,27	0,17	0,12	0,24	0,14	0,07	0,41	0,24	0,16	0,46	0,27	0,14	0,63	0,41	0,19
Eurovent energy class	E/E				C/B			D/C			C/B			D/C		
FCEER/FCCOP																
Connection diameter, cooling	in	3/4 gas			3/4 gas			3/4 gas			1 gas			1 gas		
Connection diameter, heating	in	1/2 gas			1/2 gas			1/2 gas			3/4 gas			3/4 gas		
Drain pipe connection outside diameter	mm	16			16			16			16			16		
Unit net weight	kg	14,8			16,5			16,5			39,6			39,6		
Grille weight	kg	3			3			3			5			5		

Based on Eurovent conditions:

Cooling mode (2 and 4-pipe coil): entering air temperature 27°C db/1 9°C wb, entering/leaving water temperature 7/12°C, high fan speed.

Heating mode (2-pipe coil): entering air temperature 20°C, entering water temperature 50°C, high fan speed, water flow rate as cooling mode.

Heating mode (4-pipe coil): entering air temperature 20°C, entering water temperature 70°C, high fan speed, water $\Delta t = 10$ K

* Fan speeds: 1 = high, 2 = medium, 3 = low

** Sound pressure level and NR values are based on a hypothetical sound attenuation for the room of -9 dB(A).

Note: Electrical heater version is available on all 2-pipe units.

Physical and electrical data of LEC motor units

42GW		209C			309C			409C			509C			609C			709C		
Coil type		2 pipes			2 pipes			2 pipes			2 pipes			2 pipes			2 pipes		
Fan speed	V	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2
Air flow	l/s	183	125	100	204	140	89	249	173	134	272	199	147	321	229	139	443	299	166
Cooling mode																			
Total cooling capacity	kW	2,39	1,78	1,55	4,02	2,89	1,88	4,74	3,52	2,8	6,1	4,45	3,36	7,22	5,49	3,71	9,67	6,53	4,06
Sensible cooling capacity	kW	2,01	1,5	1,3	3,07	2,19	1,42	3,67	2,7	2,1	4,5	3,37	2,53	5,46	4,09	2,69	7,27	4,9	2,99
Water flow rate	l/s	0,11	0,09	0,08	0,19	0,14	0,09	0,23	0,17	0,13	0,29	0,21	0,16	0,34	0,26	0,18	0,46	0,31	0,19
	l/h	410	310	270	690	500	320	810	600	480	1050	760	580	1240	940	640	1660	1120	700
Water pressure drop	kPa	10	5	4	14	7	3	18	10	6	22	12	7	11	6	3	25	12	5
Heating mode																			
Heating capacity	kW	3,2	2,5	2,2	4,53	3,72	2,32	6,2	4,61	3,7	8,07	5,97	4,48	9,99	7,4	4,61	12,99	9,3	5,21
Water pressure drop	kPa	8	5	4	13	7	3	14	8	5	17	10	6	10	6	3	22	11	5
Water content	l	0.55			1.1			1.1			1.6			2.4			2.4		
Sound power level	dB(A)	49	40	36	53	44	35	57	48	42	49	40	35	54	46	38	61	52	40
Sound pressure level**	dB(A)	40	31	27	44	35	26	48	39	33	40	31	26	45	37	29	52	43	31
NR level**		35	27	23	39	30	20	43	34	28	35	26	21	40	32	22	47	38	25
Power input	W	29	13	9	33	14	7	57	23	13	25	12	7	45	23	9	115	40	11
Current input	A	0.19	0.1	0.08	0.27	0.13	0.08	0.46	0.2	0.12	0.23	0.12	0.08	0.4	0.22	0.1	0.89	0.35	0.12
Eurovent energy class		B/B			A/A			B/B			A/A			A/A			A/A		
FCEER/FCCOP																			
Electric heater (high capacity)	W	1500			2500			2500			3000			3000			3000		
Current input (high capacity)	A	6.3			10.4			10.4			12.5			12.5			12.5		
Connection diameter	in	3/4 gas			3/4 gas			3/4 gas			1 gas			1 gas			1 gas		
Drain pipe connection outside diameter	mm	16			16			16			16			16			16		
Unit net weight	kg	14.8			16.5			16.5			37			39.6			39.6		
Grille weight	kg	3			3			3			5			5			5		

42GW		209D			309D			409D			609D			709D		
Coil type		4 pipes			4 pipes			4 pipes			4 pipes			4 pipes		
Fan speed	V	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2
Air flow	l/s	183	125	100	204	140	89	249	173	134	321	229	139	443	299	166
Cooling mode																
Total cooling capacity	kW	2	1,5	1,3	3,4	2,7	2	4,05	3,24	2,57	6,67	4,99	2,99	8,03	6,06	3,19
Sensible cooling capacity	kW	1,87	1,4	1,19	2,68	2,09	1,5	3,35	2,61	2,05	5,1	3,8	2,25	6,4	4,73	2,4
Water flow rate	l/s	0,10	0,07	0,06	0,17	0,13	0,10	0,20	0,16	0,12	0,32	0,24	0,14	0,39	0,32	0,18
	l/h	350	260	230	580	460	340	700	560	440	1140	860	510	1380	1040	550
Water pressure drop	kPa	13	8	6	11	7	4	15	10	6	24	14	5	33	20	6
Water content	l	0.4			1.1			1.1			2.4			2.4		
Heating mode																
Heating capacity	kW	1,9	1,44	1,24	6,37	5,1	3,61	6,81	5,81	5,01	11,5	8,9	6,01	15,99	11,5	7,31
Water flow rate	l/s	0,05	0,04	0,03	0,15	0,12	0,09	0,16	0,14	0,12	0,27	0,21	0,14	0,39	0,27	0,17
	l/h	170	130	110	548	439	310	585	499	430	989	765	516	1410	989	628
Water pressure drop	kPa	35	21	16	25	17	9	29	22	17	13	9	4	24	13	6
Water content	l	0.1			0.6			0.6			1.2			1.2		
Sound power level	dB(A)	49	40	36	53	44	35	57	48	42	54	46	38	61	52	40
Sound pressure level**	dB(A)	40	31	27	44	35	26	48	39	33	45	37	29	52	43	31
NR level **		35	27	23	39	30	20	43	34	28	40	32	22	47	38	25
Power input	W	29	13	9	33	14	7	57	23	13	45	23	9	115	40	11
Current input	A	0.19	0.1	0.08	0.27	0.13	0.08	0.46	0.2	0.12	0.4	0.22	0.1	0.89	0.35	0.12
Eurovent energy class		B/C			A/A			B/A			A/A			B/A		
FCEER/FCCOP																
Connection diameter, cooling	in	3/4 gas			3/4 gas			3/4 gas			1 gas			1 gas		
Connection diameter, heating	in	1/2 gas			1/2 gas			1/2 gas			3/4 gas			3/4 gas		
Drain pipe connection outside diameter	mm	16			16			16			16			16		
Unit net weight	kg	14.8			16.5			16.5			39.6			39.6		
Grille weight	kg	3			3			3			5			5		
2 way valve weight	kg							0.5			0.8			0.8		
4 way valve weight	kg							0.7			1			1		
Resistors weight	kg							2			3			3		

Based on Eurovent conditions:

Cooling mode (2 and 4-pipe coil): entering air temperature 27°C db/1 9°C wb, entering/leaving water temperature 7/12°C, high fan speed.

Heating mode (2-pipe coil): entering air temperature 20°C, entering water temperature 50°C, high fan speed, water flow rate as cooling mode.

Heating mode (4-pipe coil): entering air temperature 20°C, entering water temperature 70°C, high fan speed, water Δt = 10 K

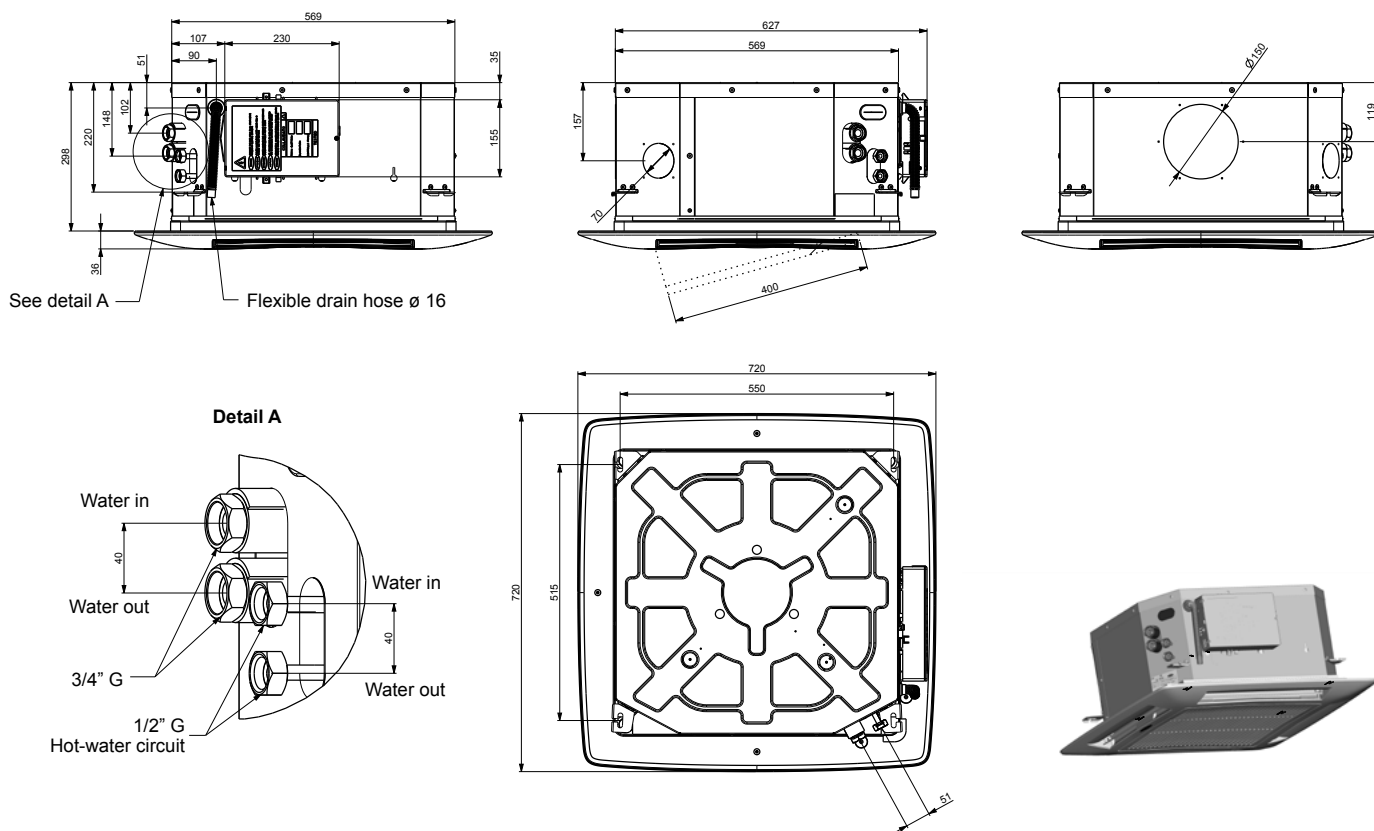
** Sound pressure level and NR values are based on a hypothetical sound attenuation for the room of -9 dB(A).

Note: Electrical heater version is available on all 2-pipe units.

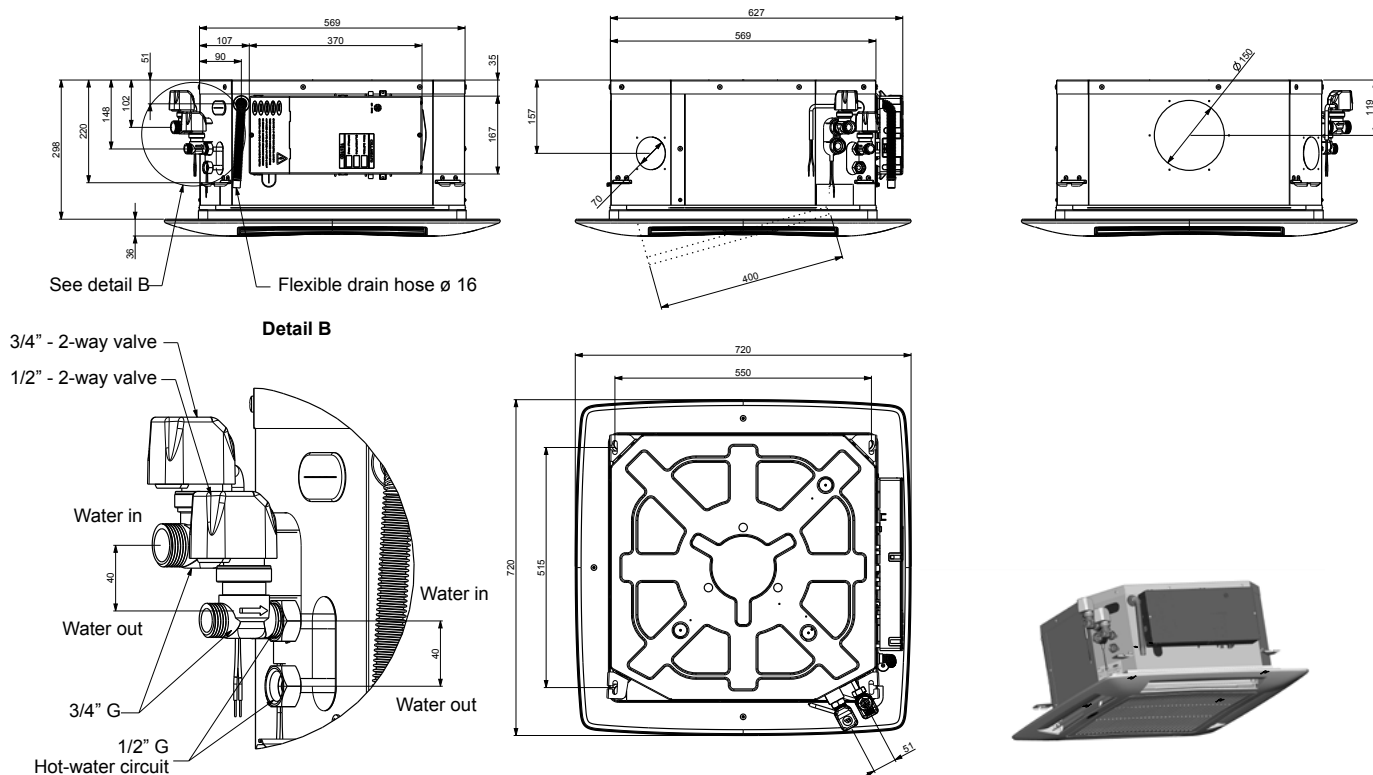
Dimensions, mm

42GW 200/209 - 300/309 - 400/409 (compact chassis)

Unit without valves



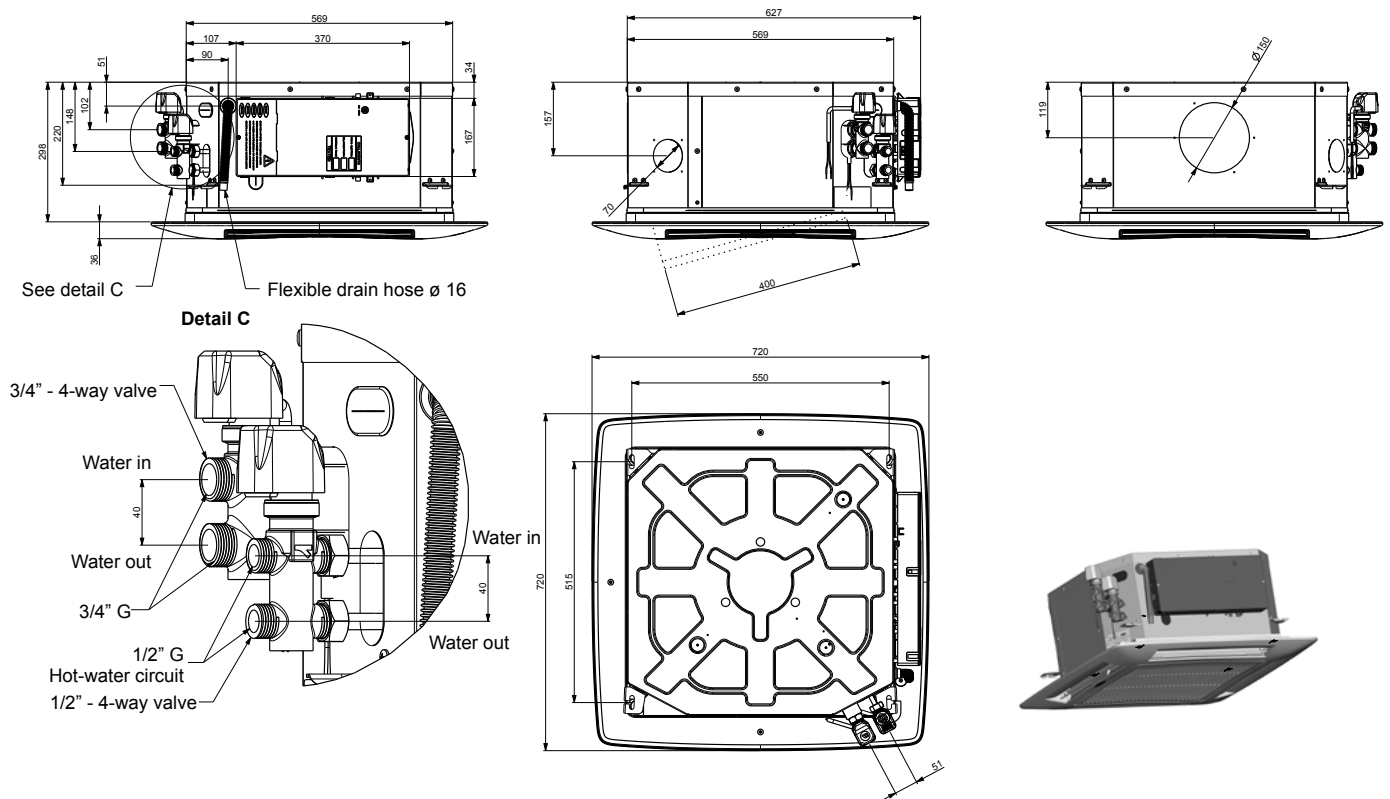
Unit with two-way valves



Dimensions, mm

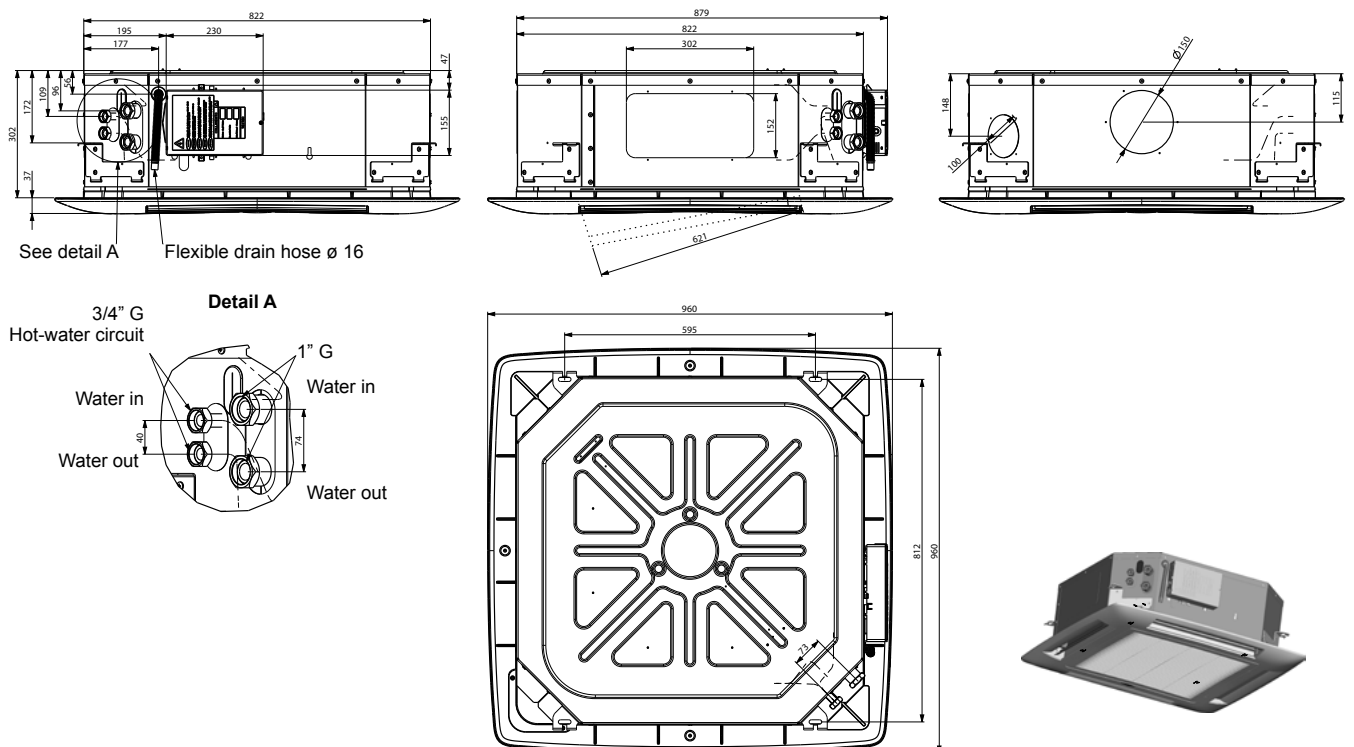
42GW 200/209 - 300/309 - 400/409 (compact chassis)

Unit with four-way valves



42GW 500/509 - 600/609 - 701/709 (large chassis)

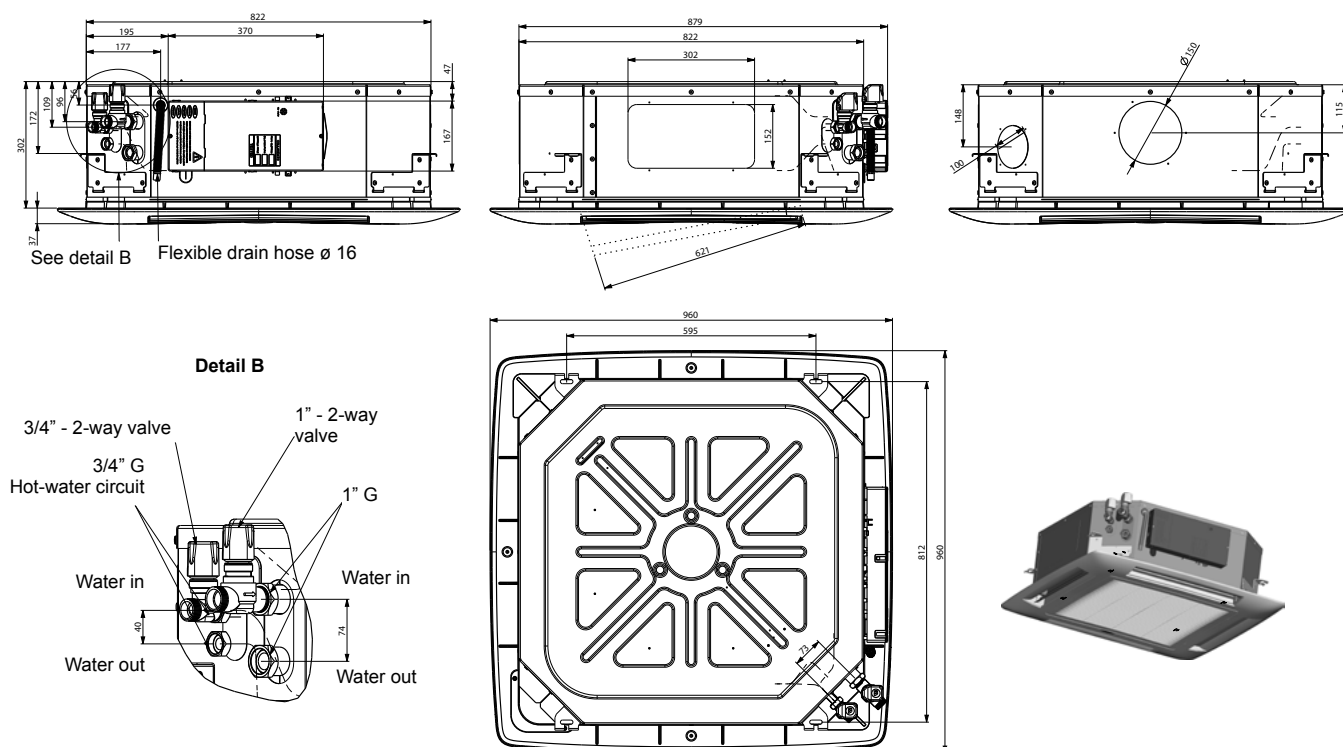
Unit without valves



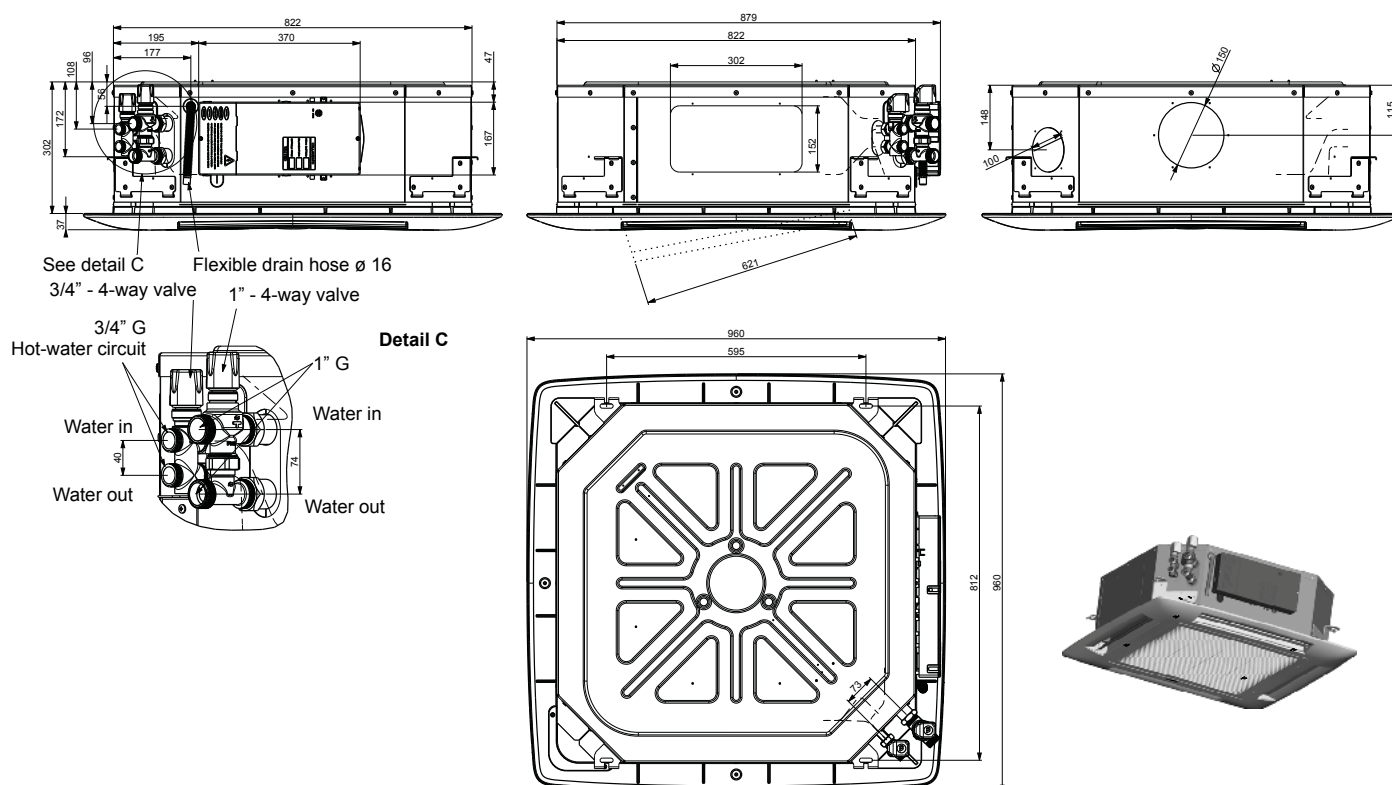
Dimensions, mm

42GW 500/509 - 600/609 - 701/709 (large chassis)

Unit with two-way valves



Unit with four-way valves



Cooling capacities in kW, two-pipe coil

EAT	EWT	ΔT	Size	200	300	400	500	600	701												
EAT	EWT	ΔT	Speed N°	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
EAT	EWT	ΔT	Size	209	309	409	509	609	709												
EAT	EWT	ΔT	Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2	9	6	2			
17°C wb/ 23°C db	5	3	Total	2.81	2.16	1.89	4.27	3.11	2.08	5.06	3.80	3.06	6.93	5.14	3.92	7.88	6.03	4.04	9.10	6.94	4.34
			Sensible	1.97	1.50	1.31	2.93	2.11	1.40	3.50	2.60	2.08	4.70	3.48	2.63	5.28	4.00	2.64	6.14	4.66	2.87
	5	5	Total	2.18	1.60	1.39	3.71	2.67	1.72	4.36	3.22	2.55	5.71	4.15	3.13	6.69	5.06	3.40	8.05	6.09	3.76
			Sensible	1.70	1.26	1.09	2.67	1.90	1.23	3.17	2.32	1.84	4.13	3.02	2.26	4.73	3.55	2.34	5.66	4.27	2.60
	5	7	Total	1.32	0.87	0.75	3.09	2.14	1.33	3.55	2.46	1.86	4.40	3.00	2.24	5.01	3.61	2.38	6.73	4.96	2.94
			Sensible	1.28	0.87	0.75	2.35	1.64	1.04	2.78	1.95	1.50	3.55	2.50	1.86	3.98	2.90	1.88	5.08	3.77	2.23
	5	9	Total	0.80	0.63	0.59	2.32	1.54	0.93	2.46	1.59	1.16	3.12	2.16	1.63	3.13	2.24	1.72	5.30	3.70	2.04
			Sensible	0.80	0.63	0.59	1.97	1.34	0.83	2.20	1.49	1.11	2.82	2.00	1.51	3.01	2.15	1.57	4.42	3.18	1.81
	7	3	Total	2.27	1.73	1.52	3.50	2.54	1.70	4.14	3.11	2.50	5.63	4.18	3.17	6.47	4.95	3.34	7.51	5.73	3.58
			Sensible	1.73	1.31	1.14	2.58	1.85	1.23	3.08	2.28	1.82	4.10	3.04	2.28	4.63	3.50	2.30	5.42	4.11	2.52
	7	5	Total	1.53	1.09	0.94	2.95	2.09	1.34	3.45	2.52	1.95	4.42	3.19	2.35	5.13	3.85	2.58	6.33	4.75	2.91
			Sensible	1.42	1.02	0.88	2.31	1.63	1.05	2.74	2.00	1.55	3.56	2.60	1.92	4.04	3.01	1.97	4.90	3.68	2.22
	7	7	Total	0.99	0.66	0.60	2.25	1.54	0.93	2.52	1.72	1.26	3.26	2.24	1.68	3.53	2.49	1.70	5.05	3.65	2.06
			Sensible	0.99	0.66	0.60	1.95	1.35	0.84	2.26	1.57	1.19	2.96	2.06	1.54	3.28	2.35	1.57	4.32	3.17	1.82
	7	9	Total	0.62	0.50	0.47	1.67	1.10	0.67	1.73	1.12	0.87	2.30	1.60	1.22	2.20	1.73	1.34	3.95	2.68	1.54
			Sensible	0.62	0.50	0.47	1.58	1.06	0.66	1.71	1.12	0.87	2.25	1.59	1.21	2.20	1.73	1.30	3.69	2.58	1.49
	9	3	Total	1.67	1.26	1.10	2.74	1.98	1.30	3.24	2.41	1.93	4.34	3.20	2.42	4.96	3.78	2.56	5.81	4.41	2.75
			Sensible	1.49	1.12	0.97	2.23	1.59	1.04	2.67	1.96	1.56	3.54	2.61	1.95	3.97	2.98	1.96	4.68	3.53	2.15
	9	5	Total	1.14	0.80	0.69	2.17	1.49	0.93	2.53	1.76	1.34	3.31	2.35	1.72	3.67	2.70	1.81	4.70	3.47	2.06
			Sensible	1.14	0.80	0.69	1.94	1.34	0.85	2.30	1.61	1.25	3.05	2.18	1.59	3.37	2.49	1.62	4.17	3.10	1.83
	9	7	Total	0.66	0.50	0.47	1.62	1.09	0.67	1.81	1.21	0.89	2.34	1.64	1.24	2.54	1.77	1.31	3.79	2.69	1.51
			Sensible	0.66	0.50	0.47	1.57	1.06	0.66	1.78	1.21	0.89	2.30	1.64	1.23	2.54	1.77	1.29	3.62	2.61	1.47
	9	9	Total	0.45	0.36	0.35	1.18	0.79	0.48	1.15	0.80	0.61	1.62	1.13	0.92	1.57	1.26	1.01	2.88	1.92	1.13
			Sensible	0.45	0.36	0.35	1.18	0.79	0.48	1.15	0.80	0.61	1.62	1.13	0.92	1.57	1.26	1.01	2.88	1.92	1.13
	11	3	Total	1.20	0.88	0.76	1.98	1.41	0.90	2.36	1.72	1.36	3.20	2.34	1.76	3.55	2.68	1.80	4.24	3.18	1.94
			Sensible	1.20	0.88	0.76	1.87	1.33	0.85	2.24	1.63	1.29	3.03	2.22	1.66	3.34	2.49	1.63	3.97	2.98	1.79
	11	5	Total	0.85	0.58	0.50	1.55	1.06	0.65	1.83	1.26	0.96	2.45	1.69	1.26	2.71	1.97	1.29	3.55	2.59	1.49
			Sensible	0.85	0.58	0.50	1.53	1.06	0.65	1.82	1.26	0.96	2.45	1.69	1.26	2.71	1.97	1.29	3.49	2.56	1.48
	11	7	Total	0.45	0.36	0.34	1.18	0.78	0.48	1.26	0.82	0.63	1.66	1.16	0.88	1.61	1.27	0.97	2.83	1.94	1.11
			Sensible	0.45	0.36	0.34	1.18	0.78	0.48	1.26	0.82	0.63	1.66	1.16	0.88	1.61	1.27	0.97	2.83	1.94	1.11
	11	9	Total	0.28	0.24	0.23	0.76	0.50	0.30	0.67	0.47	0.37	0.97	0.76	0.63	0.98	0.81	0.68	1.81	1.24	0.74
			Sensible	0.28	0.24	0.23	0.76	0.50	0.30	0.67	0.47	0.37	0.97	0.76	0.63	0.98	0.81	0.68	1.81	1.24	0.74
	13	3	Total	0.94	0.68	0.58	1.50	1.03	0.65	1.80	1.29	0.98	2.43	1.77	1.31	2.69	1.99	1.32	3.26	2.42	1.43
			Sensible	0.94	0.68	0.58	1.50	1.03	0.65	1.80	1.29	0.98	2.43	1.77	1.31	2.69	1.99	1.32	3.26	2.42	1.43
	13	5	Total	0.53	0.37	0.34	1.14	0.77	0.48	1.31	0.89	0.66	1.69	1.19	0.90	1.91	1.34	0.94	2.69	1.93	1.08
			Sensible	0.53	0.37	0.34	1.14	0.77	0.48	1.31	0.89	0.66	1.69	1.19	0.90	1.91	1.34	0.94	2.69	1.93	1.08
	13	7	Total	0.28	0.23	0.22	0.74	0.50	0.30	0.69	0.48	0.37	0.98	0.70	0.58	0.97	0.79	0.64	1.81	1.22	0.72
			Sensible	0.28	0.23	0.22	0.74	0.50	0.30	0.69	0.48	0.37	0.98	0.70	0.58	0.97	0.79	0.64	1.81	1.22	0.72
	13	9	Total	0.13	0.12	0.11	0.31	0.20	0.12	0.24	0.18	0.15	0.50	0.39	0.33	0.43	0.38	0.34	0.75	0.50	0.32
			Sensible	0.13	0.12	0.11	0.31	0.20	0.12	0.24	0.18	0.15	0.50	0.39	0.33	0.43	0.38	0.34	0.75	0.50	0.32
19°C wb/ 25°C db	5	3	Total	3.55	2.74	2.41	5.34	3.89	2.61	6.35	4.76	3.85	8.78	6.53	4.96	9.84	7.54	5.04	11.31	8.64	5.40
			Sensible	2.21	1.69	1.48	3.27	2.37	1.58	3.91	2.90	2.34	5.31	3.94	2.98	5.92	4.50	2.98	6.85	5.21	3.22
	5	5	Total	3.01	2.26	1.98	4.76	3.45	2.27	5.62	4.19	3.35	7.46	5.49	4.15	8.79	6.70	4.51	10.33	7.85	4.89
			Sensible	1.97	1.48	1.29	3.02	2.17	1.42	3.60	2.66	2.12	4.73	3.48	2.61	5.44	4.11	2.73	6.41	4.86	2.98
	5	7	Total	2.21	1.53	1.32	4.14	2.93	1.88	4.82	3.52	2.71	6.08	4.37	3.20	7.30	5.47	3.65	9.09	6.83	4.18
			Sensible	1.65	1.19	1.02	2.74	1.93	1.24	3.23	2.35	1.83	4.12	2.99	2.20	4.80	3.57	2.34	5.87	4.41	2.67
	5	9	Total	1.14	0.79	0.73	3.40	2.35	1.42	3.85	2.62	1.92	4.57	3.09	2.31	5.20	3.58	2.39	7.54	5.50	3.17
			Sensible	1.14	0.79	0.73	2.39	1.67	1.04	2.79	1.94	1.47	3.49	2.45	1.83	3.92	2.79	1.82	5.23	3.86	2.24
	7	3	Total	3.01	2.32	2.04	4.55	3.33	2.23	5.41	4.06	3.28	7.43	5.52	4.21	8.45	6.48	4.35	9.72	7.43	4.65
			Sensible	1.97	1.51	1.32	2.92	2.11	1.41	3.50	2.59	2.08	4.70	3.48	2.63	5.29	4.01	2.65	6.13	4.66	2.87
	7	5	Total	2.40	1.78	1.56	3.96	2.86	1.85	4.66	3.46	2.76	6.12	4.47	3.37	7.25	5.52	3.72	8.62	6.54	4.07
			Sensible	1.72	1.29	1.12	2.67	1.91	1.24	3.17	2.33	1.86	4.14	3.03	2.28	4.77	3.59	2.37	5.66	4.28	2.62
	7	7	Total	1.46	0.96	0.83	3.33	2.31	1.46	3.83	2.72	2.06	4.70	3.27	2.39	5.54	4.06	2.70	7.20	5.35	3.22
			Sensible	1.34	0.93	0.80	2.38	1.65	1.06	2.80	1.99	1.54	3.55	2.54	1.87	4.07	2.99	1.94	5.08	3.80	2.26
	7	9	Total	0.84	0.65	0.60	2.49	1.67	0.99	2.68	1.75	1.23	3.25	2.28	1.72	3.43	2.33	1.79	5.60	4.01	2.17
			Sensible	0.84	0.65	0.60	1.99	1.37	0.85	2.26	1.54	1.14	2.83	2.02	1.52	3.14	2.19	1.56	4.42	3.23	1.82
	9	3	Total	2.44	1.87	1.65	3.73	2.72	1.82	4.41	3.32	2.68	6.02	4.47	3.41	6.96	5.34	3.60	8.03	6.13	3.85
			Sensible	1.74	1.32	1.15	2.57	1.85	1.23	3.08	2.28	1.82	4.10	3.04	2.29	4.64	3.51	2.32	5.41	4.11	2.52
	9	5	Total	1.71	1.22	1.06	3.15	2.26	1.44	3.68	2.71	2.13	4.71	3.41	2.56	5.55	4.20	2.83	6.76	5.10	3.16
			Sensible	1.46	1.07	0.92															

Cooling capacities in kW, two-pipe coil (continued)

EAT	EWT	ΔT	Size	200	300	400	500	600	701												
EAT	EWT	ΔT	Speed N°	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
EAT	EWT	ΔT	Size	209	309	409	509	609	709												
		K	Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2			
19°C wb/ 27°C db	5	3	Total	3.55	2.74	2.41	5.33	3.89	2.61	6.35	4.75	3.84	8.77	6.52	4.96	9.84	7.53	5.04	11.30	8.64	5.40
			Sensible	2.49	1.91	1.66	3.67	2.65	1.76	4.40	3.26	2.62	5.94	4.41	3.32	6.61	5.01	3.30	7.67	5.83	3.59
	5	5	Total	3.00	2.26	1.98	4.79	3.46	2.28	5.66	4.21	3.37	7.54	5.55	4.19	8.78	6.69	4.51	10.32	7.85	4.88
			Sensible	2.26	1.70	1.48	3.42	2.46	1.61	4.09	3.01	2.40	5.38	3.97	2.97	6.13	4.62	3.05	7.23	5.47	3.35
	5	7	Total	2.20	1.50	1.29	4.22	2.99	1.91	4.92	3.60	2.78	6.25	4.52	3.33	7.32	5.48	3.68	9.08	6.83	4.18
			Sensible	1.93	1.37	1.18	3.15	2.23	1.43	3.73	2.72	2.11	4.81	3.51	2.59	5.50	4.09	2.68	6.69	5.03	3.04
	5	9	Total	1.49	1.00	0.88	3.53	2.44	1.49	4.04	2.77	2.06	5.03	3.43	2.57	5.53	3.97	2.63	7.74	5.67	3.29
			Sensible	1.49	1.00	0.88	2.81	1.96	1.23	3.31	2.31	1.77	4.28	2.98	2.23	4.71	3.42	2.22	6.10	4.52	2.64
	7	3	Total	3.01	2.32	2.04	4.54	3.32	2.23	5.41	4.05	3.28	7.44	5.52	4.21	8.44	6.47	4.35	9.71	7.42	4.65
			Sensible	2.26	1.72	1.50	3.32	2.40	1.59	3.98	2.94	2.36	5.34	3.95	2.98	5.98	4.52	2.97	6.95	5.28	3.24
	7	5	Total	2.40	1.80	1.55	4.00	2.90	1.90	4.70	3.50	2.85	6.30	4.50	3.40	7.20	5.50	3.70	8.61	6.60	4.05
			Sensible	2.01	1.49	1.31	3.10	2.20	1.41	3.70	2.70	2.10	4.80	3.60	2.70	5.50	4.10	2.70	6.48	4.85	3.00
	7	7	Total	1.69	1.16	1.00	3.44	2.39	1.51	3.97	2.84	2.16	5.04	3.60	2.63	5.74	4.23	2.83	7.37	5.49	3.30
			Sensible	1.65	1.16	1.00	2.79	1.94	1.24	3.30	2.36	1.83	4.29	3.11	2.28	4.81	3.55	2.31	5.94	4.44	2.65
	7	9	Total	1.21	0.81	0.74	2.72	1.85	1.12	3.05	2.08	1.52	3.94	2.74	2.06	4.27	3.02	2.07	6.09	4.39	2.46
			Sensible	1.21	0.81	0.74	2.41	1.67	1.03	2.79	1.94	1.46	3.65	2.58	1.93	4.06	2.90	1.95	5.35	3.93	2.25
	9	3	Total	2.44	1.87	1.64	3.77	2.74	1.83	4.47	3.35	2.70	6.11	4.53	3.45	6.95	5.33	3.60	8.01	6.12	3.84
			Sensible	2.02	1.53	1.34	2.97	2.13	1.41	3.57	2.63	2.10	4.76	3.52	2.65	5.34	4.02	2.64	6.23	4.72	2.89
	9	5	Total	1.82	1.32	1.14	3.24	2.33	1.49	3.81	2.80	2.21	5.00	3.63	2.74	5.70	4.31	2.91	6.90	5.19	3.20
			Sensible	1.73	1.27	1.10	2.72	1.94	1.24	3.24	2.36	1.87	4.28	3.13	2.35	4.80	3.58	2.34	5.75	4.32	2.61
	9	7	Total	1.37	0.95	0.82	2.63	1.81	1.12	3.08	2.12	1.61	4.02	2.80	2.07	4.42	3.22	2.13	5.79	4.24	2.48
			Sensible	1.37	0.95	0.82	2.39	1.66	1.04	2.86	1.98	1.53	3.77	2.65	1.96	4.17	3.05	2.00	5.23	3.87	2.28
	9	9	Total	0.90	0.66	0.61	2.12	1.42	0.87	2.37	1.59	1.17	3.06	2.15	1.62	3.34	2.33	1.69	4.91	3.50	1.96
			Sensible	0.90	0.66	0.61	2.04	1.39	0.86	2.33	1.59	1.17	3.01	2.14	1.61	3.34	2.33	1.68	4.68	3.39	1.19
	11	3	Total	1.83	1.37	1.19	2.99	2.16	1.44	3.55	2.64	2.12	4.81	3.57	2.70	5.41	4.14	2.80	6.29	4.78	2.98
			Sensible	1.76	1.31	1.14	2.63	1.88	1.24	3.15	2.31	1.84	4.22	3.12	2.34	4.69	3.52	2.30	5.51	4.16	2.52
	11	5	Total	1.46	1.05	0.91	2.49	1.73	1.10	2.94	2.12	1.62	3.95	2.87	2.12	4.38	3.25	2.18	5.37	3.99	2.40
			Sensible	1.46	1.05	0.91	2.35	1.63	1.04	2.81	2.02	1.56	3.77	2.75	2.02	4.18	3.10	2.03	5.05	3.77	2.25
	11	7	Total	1.09	0.73	0.63	2.04	1.40	0.85	2.38	1.64	1.24	3.18	2.19	1.64	3.52	2.54	1.67	4.67	3.39	1.94
			Sensible	1.09	0.73	0.63	2.00	1.38	0.85	2.36	1.64	1.24	3.16	2.19	1.64	3.52	2.54	1.67	4.56	3.34	1.92
	11	9	Total	0.65	0.51	0.48	1.66	1.10	0.68	1.83	1.20	0.90	2.38	1.67	1.26	2.46	1.79	1.36	3.95	2.76	1.56
			Sensible	0.65	0.51	0.48	1.66	1.10	0.68	1.83	1.20	0.90	2.38	1.67	1.26	2.46	1.79	1.36	3.95	2.76	1.56
	13	3	Total	1.48	1.09	0.94	2.29	1.63	1.05	2.75	2.01	1.59	3.78	2.78	2.09	4.14	3.10	2.07	4.89	3.66	2.20
			Sensible	1.48	1.09	0.94	2.26	1.60	1.03	2.73	1.98	1.57	3.71	2.73	2.05	4.07	3.04	1.99	4.82	3.60	2.15
	13	5	Total	1.19	0.85	0.73	1.98	1.35	0.85	2.37	1.66	1.27	3.18	2.30	1.66	3.53	2.60	1.72	4.37	3.23	1.90
			Sensible	1.19	0.85	0.73	1.98	1.35	0.85	2.37	1.66	1.27	3.18	2.30	1.66	3.53	2.60	1.72	4.37	3.23	1.90
	13	7	Total	0.77	0.52	0.48	1.62	1.10	0.67	1.86	1.27	0.94	2.41	1.70	1.28	2.73	1.93	1.33	3.79	2.72	1.53
			Sensible	0.77	0.52	0.48	1.62	1.10	0.67	1.86	1.27	0.94	2.41	1.70	1.28	2.73	1.93	1.33	3.79	2.72	1.53
	13	9	Total	0.46	0.38	0.35	1.24	0.82	0.50	1.27	0.84	0.64	1.70	1.18	0.92	1.64	1.31	1.03	3.02	2.01	1.18
			Sensible	0.46	0.38	0.35	1.24	0.82	0.50	1.27	0.84	0.64	1.70	1.18	0.92	1.64	1.31	1.03	3.02	2.01	1.18
21°C wb/ 29°C db	5	3	Total	4.34	3.36	2.96	6.49	4.72	3.18	7.73	5.80	4.68	10.76	8.01	6.08	11.94	9.14	6.11	13.68	10.46	6.54
			Sensible	2.72	2.09	1.83	4.01	2.90	1.94	4.81	3.57	2.87	6.55	4.87	3.67	7.24	5.50	3.64	8.36	6.37	3.93
	5	5	Total	3.85	2.93	2.57	5.93	4.31	2.88	7.00	5.25	4.22	9.45	7.02	5.32	10.97	8.39	5.64	12.74	9.72	6.07
			Sensible	2.51	1.90	1.66	3.77	2.72	1.80	4.50	3.33	2.67	5.97	4.42	3.33	6.81	5.16	3.42	7.95	6.04	3.72
	5	7	Total	3.17	2.33	2.03	5.31	3.83	2.48	6.24	4.62	3.67	8.13	5.91	4.46	9.68	7.34	4.95	11.60	8.79	5.45
			Sensible	2.24	1.66	1.44	3.51	2.51	1.62	4.17	3.06	2.43	5.41	3.95	2.96	6.25	4.70	3.10	7.46	5.64	3.44
	5	9	Total	2.16	1.39	1.20	4.69	3.28	2.08	5.41	3.90	2.98	6.67	4.73	3.42	7.92	5.85	3.91	10.19	7.62	4.62
			Sensible	1.86	1.29	1.11	3.22	2.26	1.45	3.79	2.74	2.11	4.80	3.47	2.54	5.54	4.08	2.66	6.88	5.16	3.10
	7	3	Total	3.80	2.94	2.60	5.70	4.16	2.80	6.78	5.09	4.12	9.42	7.01	5.33	10.55	8.09	5.43	12.08	9.24	5.80
			Sensible	2.49	1.91	1.67	3.67	2.65	1.77	4.39	3.26	2.62	5.95	4.41	3.33	6.61	5.02	3.31	7.65	5.82	3.59
	7	5	Total	3.26	2.47	2.17	5.11	3.71	2.47	6.03	4.51	3.62	8.07	5.99	4.53	9.47	7.25	4.89	11.05	8.42	5.27
			Sensible	2.28	1.72	1.49	3.42	2.46	1.62	4.08	3.01	2.41	5.38	3.98	2.99	6.16	4.66	3.08	7.22	5.48	3.36
	7	7	Total	2.49	1.78	1.54	4.51	3.24	2.07	5.27	3.88	3.06	6.74	4.87	3.66	7.99	6.03	4.05	9.76	7.37	4.55
			Sensible	1.98	1.45	1.25	3.15	2.25	1.45	3.74	2.74	2.16	4.83	3.52	2.63	5.56	4.16	2.72	6.70	5.05	3.07
	7	9	Total	1.60	1.06	0.92	3.83	2.65	1.64	4.38	3.04	2.29	5.36	3.68	2.73	6.14	4.42	2.91	8.29	6.12	3.63
			Sensible	1.57	1.06	0.92	2.85	1.98	1.26	3.35	2.36	1.82	4.28	3.03	2.25	4.81	3.51	2.27	6.11	4.54	2.69
	9	3	Total	3.23	2.50	2.20	4.86	3.55	2.39	5.78	4.34	3.52	7.98	5.94	4.53	9.06	6.97	4.69	10.38	7.95	5.00
			Sensible	2.26	1.73	1.51	3.32	2.39	1.59	3.98	2.94	2.36	5.34	3.96	2.98	5.98	4.53	2.99	6.94	5.27	3.24
	9	5	Total	2.62	1.9																

Heating capacities in kW, two-pipe coil

Water flow rate		Δt	Size	200			300			400			500			600			701		
l/s	l/h	K		Speed N°	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2
Water flow rate		Δt	Size	209			309			409			509			609			709		
l/s	l/h	K		Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2	9	6
0.06	200	20	Total	1.70	1.48	1.36	2.07	1.99	1.45	2.36	2.06	1.84	3.09	2.51	2.14	3.21	2.90	2.27	3.31	3.13	2.32
0.13	480	20	Total	2.17	1.80	1.61	2.97	2.61	1.77	3.49	2.86	2.43	4.38	3.56	2.86	4.99	4.16	2.90	5.11	4.79	3.14
0.21	760	20	Total	2.37	1.93	1.71	3.37	2.84	1.88	4.02	3.18	2.65	5.02	3.95	3.09	5.94	4.72	3.11	6.31	5.65	3.48
0.29	1040	20	Total	2.48	1.99	1.76	3.58	2.95	1.93	4.31	3.35	2.76	5.35	4.15	3.19	6.43	4.97	3.19	7.00	6.08	3.63
0.37	1320	20	Total	2.55	2.03	1.79	3.72	3.02	1.96	4.50	3.45	2.82	5.55	4.26	3.25	6.69	5.10	3.23	7.39	6.31	3.70
0.44	1600	20	Total	2.59	2.06	1.81	3.80	3.06	1.97	4.61	3.51	2.86	5.66	4.32	3.28	6.84	5.17	3.25	7.63	6.44	3.74
0.52	1880	20	Total	2.62	2.08	1.82	3.87	3.09	1.99	4.71	3.56	2.89	5.76	4.37	3.31	6.97	5.22	3.27	7.84	6.55	3.78
0.60	2160	20	Total	2.65	2.09	1.83	3.92	3.11	2.00	4.78	3.60	2.91	5.83	4.41	3.33	7.06	5.26	3.28	7.99	6.63	3.80
0.68	2440	20	Total	2.67	2.10	1.84	3.96	3.13	2.01	4.84	3.63	2.93	5.88	4.43	3.34	7.13	5.29	3.29	8.11	6.69	3.82
0.76	2720	20	Total	2.68	2.11	1.85	4.00	3.14	2.01	4.89	3.66	2.95	5.92	4.46	3.36	7.18	5.31	3.30	8.20	6.73	3.83
0.83	3000	20	Total	2.70	2.12	1.85	4.02	3.15	2.02	4.92	3.67	2.96	5.95	4.47	3.36	7.22	5.33	3.30	8.27	6.77	3.84
0.06	200	30	Total	2.61	2.26	2.08	3.49	3.05	2.22	3.90	3.18	2.84	5.06	4.11	3.29	4.90	4.43	3.46	4.81	4.78	3.56
0.13	480	30	Total	3.30	2.72	2.44	4.52	3.95	2.68	5.31	4.33	3.68	6.64	5.39	4.32	7.61	6.33	4.39	7.83	7.31	4.78
0.21	760	30	Total	3.60	2.91	2.58	5.11	4.29	2.83	6.10	4.81	4.00	7.57	5.96	4.65	9.02	7.14	4.69	9.63	8.58	5.26
0.29	1040	30	Total	3.75	3.01	2.65	5.42	4.45	2.90	6.53	5.06	4.16	8.07	6.25	4.81	9.72	7.49	4.80	10.62	9.19	5.47
0.37	1320	30	Total	3.85	3.06	2.69	5.62	4.55	2.95	6.80	5.21	4.25	8.36	6.41	4.89	10.10	7.68	4.86	11.19	9.52	5.58
0.44	1600	30	Total	3.91	3.10	2.72	5.74	4.60	2.97	6.97	5.30	4.31	8.53	6.50	4.94	10.32	7.78	4.89	11.55	9.72	5.64
0.52	1880	30	Total	3.96	3.13	2.74	5.84	4.65	2.99	7.11	5.37	4.35	8.67	6.57	4.98	10.50	7.86	4.91	11.84	9.87	5.68
0.60	2160	30	Total	3.99	3.15	2.76	5.92	4.68	3.00	7.22	5.43	4.39	8.77	6.63	5.01	10.63	7.91	4.93	12.07	9.98	5.72
0.68	2440	30	Total	4.02	3.17	2.77	5.98	4.71	3.02	7.31	5.47	4.41	8.85	6.67	5.03	10.73	7.96	4.94	12.24	10.07	5.75
0.76	2720	30	Total	4.05	3.18	2.78	6.03	4.73	3.02	7.37	5.50	4.43	8.91	6.70	5.04	10.81	7.99	4.95	12.38	10.13	5.77
0.83	3000	30	Total	4.06	3.19	2.79	6.06	4.74	3.03	7.42	5.53	4.45	8.95	6.72	5.06	10.86	8.01	4.96	12.48	10.18	5.78
0.06	200	40	Total	3.54	3.06	2.81	4.76	4.15	3.02	5.33	4.35	3.87	6.01	5.22	4.48	6.63	5.99	4.68	6.53	6.47	4.83
0.13	480	40	Total	4.44	3.66	3.28	6.08	5.30	3.59	7.15	5.82	4.94	8.89	7.22	5.78	10.28	8.53	5.89	10.62	9.87	6.45
0.21	760	40	Total	4.83	3.91	3.46	6.86	5.75	3.79	8.20	6.46	5.36	10.14	7.99	6.23	12.15	9.59	6.28	13.02	11.55	7.07
0.29	1040	40	Total	5.04	4.03	3.55	7.28	5.96	3.89	8.77	6.78	5.57	10.80	8.36	6.43	13.03	10.03	6.42	14.28	12.32	7.32
0.37	1320	40	Total	5.16	4.11	3.61	7.54	6.09	3.94	9.13	6.98	5.69	11.19	8.57	6.54	13.54	10.27	6.49	15.04	12.76	7.46
0.44	1600	40	Total	5.24	4.15	3.64	7.70	6.16	3.97	9.35	7.09	5.76	11.42	8.69	6.60	13.83	10.40	6.53	15.50	13.01	7.54
0.52	1880	40	Total	5.30	4.19	3.67	7.83	6.22	4.00	9.54	7.19	5.82	11.60	8.79	6.65	14.06	10.50	6.56	15.89	13.21	7.60
0.60	2160	40	Total	5.35	4.22	3.69	7.93	6.26	4.02	9.68	7.26	5.86	11.73	8.86	6.69	14.23	10.58	6.58	16.18	13.36	7.64
0.68	2440	40	Total	5.39	4.24	3.70	8.01	6.29	4.03	9.79	7.32	5.90	11.83	8.91	6.72	14.36	10.63	6.60	16.41	13.47	7.68
0.76	2720	40	Total	5.42	4.26	3.72	8.07	6.32	4.04	9.88	7.37	5.93	11.91	8.96	6.74	14.46	10.67	6.61	16.59	13.55	7.70
0.83	3000	40	Total	5.44	4.27	3.73	8.12	6.34	4.05	9.94	7.40	5.95	11.96	8.98	6.75	14.53	10.70	6.62	16.72	13.61	7.72
0.06	200	50	Total	4.49	3.87	3.55	5.60	5.26	3.81	6.34	5.52	4.91	7.60	6.64	5.70	8.39	7.58	5.92	8.29	8.19	6.13
0.13	480	50	Total	5.60	4.60	4.12	7.67	6.66	4.51	9.01	7.33	6.21	11.14	9.05	7.25	13.00	10.76	7.41	13.46	12.48	8.14
0.21	760	50	Total	6.08	4.91	4.35	8.64	7.21	4.76	10.32	8.12	6.73	12.73	10.02	7.81	15.30	12.05	7.87	16.44	14.54	8.88
0.29	1040	50	Total	6.33	5.06	4.46	9.16	7.48	4.87	11.03	8.52	6.99	13.55	10.48	8.06	16.37	12.58	8.04	17.97	15.48	9.19
0.37	1320	50	Total	6.49	5.15	4.53	9.48	7.63	4.94	11.47	8.76	7.14	14.03	10.75	8.19	16.99	12.87	8.13	18.92	16.01	9.35
0.44	1600	50	Total	6.58	5.21	4.57	9.67	7.72	4.98	11.75	8.90	7.23	14.31	10.89	8.27	17.35	13.03	8.17	19.49	16.32	9.45
0.52	1880	50	Total	6.66	5.26	4.60	9.83	7.79	5.01	11.98	9.02	7.30	14.54	11.01	8.33	17.63	13.16	8.21	19.97	16.57	9.52
0.60	2160	50	Total	6.72	5.29	4.62	9.96	7.84	5.03	12.15	9.11	7.35	14.70	11.10	8.38	17.84	13.24	8.23	20.32	16.74	9.57
0.68	2440	50	Total	6.76	5.32	4.64	10.05	7.88	5.05	12.29	9.18	7.39	14.82	11.17	8.41	17.99	13.31	8.25	20.60	16.87	9.61
0.76	2720	50	Total	6.80	5.34	4.66	10.13	7.92	5.06	12.40	9.23	7.43	14.92	11.22	8.44	18.12	13.36	8.27	20.82	16.98	9.65
0.83	3000	50	Total	6.83	5.36	4.67	10.19	7.94	5.07	12.48	9.27	7.45	14.99	11.25	8.45	18.20	13.40	8.28	20.98	17.05	9.67
0.06	200	60	Total	5.45	4.69	4.29	6.81	6.37	4.62	7.71	6.26	5.95	9.25	8.08	6.94	10.17	9.18	7.18	10.07	9.93	7.45
0.13	480	60	Total	6.76	5.56	4.97	9.27	8.02	5.43	10.88	8.84	7.48	13.40	10.89	8.72	15.74	13.00	8.94	16.34	15.10	9.84
0.21	760	60	Total	7.34	5.92	5.24	10.43	8.69	5.73	12.46	9.79	8.11	15.33	12.06	9.39	18.46	14.51	9.47	19.88	17.54	10.70
0.29	1040	60	Total	7.64	6.10	5.37	11.05	9.00	5.86	13.31	10.26	8.41	16.31	12.61	9.69	19.73	15.14	9.67	21.70	18.65	11.06
0.37	1320	60	Total	7.82	6.21	5.45	11.42	9.18	5.94	13.83	10.55	8.59	16.89	12.93	9.85	20.46	15.48	9.77	22.83	19.28	11.25
0.44	1600	60	Total	7.93	6.27	5.50	11.65	9.28	5.98	14.16	10.72	8.69	17.22	13.10	9.94						

Cooling capacities in kW, four-pipe coil

EAT	EWT	Δt	Size	200	300			400			600			701				
		K	Speed N°	1	2	3	1	2	3	1	2	3	1	2	3			
EAT	EWT	Δt	Size	209	309			409			609			709				
		K	Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2			
17°C wb/ 23°C db	5	3	Total	2.75	2.08	1.80	3.78	2.97	2.21	4.72	3.80	3.09	7.40	5.60	3.52	8.91	7.47	4.25
			Sensible	1.99	1.48	1.26	2.63	2.03	1.48	3.34	2.63	2.12	5.05	3.79	2.37	6.10	5.03	2.85
	5	5	Total	2.02	1.52	1.34	3.18	2.47	1.81	3.58	2.85	2.20	6.08	4.52	2.61	7.39	6.26	3.32
			Sensible	1.68	1.24	1.06	2.34	1.79	1.29	2.80	2.18	1.70	4.44	3.28	1.95	5.41	4.47	2.42
	5	7	Total	1.43	1.08	0.97	2.43	1.83	1.36	1.93	1.54	1.19	4.45	3.02	1.58	5.61	4.77	2.10
			Sensible	1.39	1.03	0.90	1.96	1.48	1.07	1.90	1.50	1.17	3.69	2.57	1.42	4.58	3.79	1.82
	5	9	Total	1.09	0.83	0.76	1.58	1.17	0.93	1.16	1.06	0.90	2.73	1.88	1.08	3.59	3.08	1.32
			Sensible	1.09	0.83	0.76	1.49	1.11	0.85	1.16	1.06	0.90	2.61	1.83	1.07	3.38	2.83	1.31
	7	3	Total	2.17	1.65	1.43	3.08	2.41	1.80	3.80	3.06	2.47	6.00	4.54	2.82	7.23	6.08	3.43
			Sensible	1.74	1.29	1.10	2.31	1.78	1.29	2.92	2.29	1.84	4.41	3.30	2.05	5.35	4.39	2.47
	7	5	Total	1.52	1.14	1.01	2.49	1.88	1.40	2.61	2.02	1.51	4.66	3.41	1.84	5.73	4.85	2.41
			Sensible	1.45	1.08	0.93	2.02	1.51	1.10	2.33	1.78	1.37	3.79	2.78	1.59	4.66	3.83	2.01
	7	7	Total	1.16	0.88	0.78	1.70	1.25	0.94	1.41	1.14	0.92	3.08	2.13	1.14	4.06	3.39	1.48
			Sensible	1.16	0.88	0.78	1.58	1.17	0.86	1.41	1.14	0.92	2.90	2.02	1.13	3.79	3.09	1.44
	7	9	Total	0.82	0.64	0.60	1.12	0.87	0.69	0.88	0.81	0.70	1.90	1.33	0.85	2.52	2.16	1.01
			Sensible	0.82	0.64	0.60	1.12	0.87	0.68	0.88	0.81	0.70	1.90	1.33	0.85	2.52	2.15	1.01
	9	3	Total	1.60	1.18	1.03	2.38	1.86	1.39	2.89	2.31	1.85	4.61	3.48	2.12	5.57	4.70	2.60
			Sensible	1.51	1.10	0.93	1.98	1.52	1.10	2.49	1.94	1.55	3.79	2.83	1.74	4.60	3.77	2.10
	9	5	Total	1.22	0.91	0.80	1.73	1.31	0.97	1.79	1.38	1.07	3.34	2.39	1.29	4.15	3.51	1.65
			Sensible	1.22	0.91	0.80	1.62	1.22	0.89	1.79	1.37	1.07	3.14	2.25	1.25	3.89	3.20	1.57
	9	7	Total	0.89	0.67	0.61	1.21	0.89	0.68	0.92	0.83	0.71	2.15	1.50	0.84	2.81	2.33	1.07
			Sensible	0.89	0.67	0.61	1.21	0.89	0.68	0.92	0.83	0.71	2.15	1.50	0.84	2.81	2.31	1.07
	9	9	Total	0.57	0.49	0.47	0.79	0.62	0.50	0.61	0.58	0.51	1.15	0.92	0.62	1.55	1.41	0.74
			Sensible	0.57	0.49	0.47	0.79	0.62	0.50	0.61	0.58	0.51	1.15	0.92	0.62	1.55	1.41	0.74
	11	3	Total	1.26	0.93	0.81	1.70	1.31	0.95	2.07	1.61	1.26	3.32	2.46	1.46	4.04	3.39	1.81
			Sensible	1.26	0.93	0.81	1.64	1.25	0.89	2.05	1.58	1.25	3.18	2.35	1.41	3.88	3.18	1.73
	11	5	Total	0.94	0.71	0.63	1.26	0.94	0.68	1.25	0.99	0.77	2.45	1.66	0.93	3.08	2.55	1.19
			Sensible	0.94	0.71	0.63	1.26	0.94	0.68	1.25	0.99	0.77	2.45	1.66	0.93	3.08	2.55	1.19
	11	7	Total	0.60	0.47	0.44	0.81	0.63	0.50	0.63	0.58	0.50	1.38	0.96	0.61	1.83	1.57	0.73
			Sensible	0.60	0.47	0.44	0.81	0.63	0.50	0.63	0.58	0.50	1.38	0.96	0.61	1.83	1.57	0.73
	11	9	Total	0.39	0.34	0.33	0.46	0.37	0.31	0.38	0.37	0.33	0.70	0.59	0.41	0.81	0.81	0.48
			Sensible	0.39	0.34	0.33	0.46	0.37	0.31	0.38	0.37	0.33	0.70	0.59	0.41	0.81	0.81	0.48
	13	3	Total	0.98	0.73	0.63	1.30	0.95	0.69	1.57	1.20	0.92	2.51	1.84	1.04	3.10	2.54	1.33
			Sensible	0.98	0.73	0.63	1.30	0.95	0.69	1.57	1.20	0.92	2.51	1.84	1.04	3.10	2.54	1.33
	13	5	Total	0.65	0.49	0.45	0.89	0.65	0.49	0.71	0.60	0.51	1.59	1.12	0.61	2.13	1.70	0.79
			Sensible	0.65	0.49	0.45	0.89	0.65	0.49	0.71	0.60	0.51	1.59	1.12	0.61	2.13	1.70	0.79
	13	7	Total	0.37	0.32	0.30	0.47	0.38	0.31	0.37	0.36	0.31	0.68	0.57	0.39	0.81	0.79	0.46
			Sensible	0.37	0.32	0.30	0.47	0.38	0.31	0.37	0.36	0.31	0.68	0.57	0.39	0.81	0.79	0.46
	13	9	Total	0.21	0.18	0.18	0.16	0.14	0.14	0.17	0.17	0.15	0.32	0.28	0.20	0.37	0.38	0.23
			Sensible	0.21	0.18	0.18	0.16	0.14	0.14	0.17	0.17	0.15	0.32	0.28	0.20	0.37	0.38	0.23
19°C wb/ 25°C db	5	3	Total	3.53	2.67	2.30	4.74	3.73	2.77	6.03	4.84	3.95	9.34	7.09	4.48	11.22	9.40	5.36
			Sensible	2.24	1.67	1.42	2.93	2.28	1.67	3.76	2.97	2.41	5.68	4.28	2.69	6.86	5.67	3.23
	5	5	Total	2.83	2.13	1.86	4.15	3.25	2.41	4.93	3.95	3.16	8.02	6.07	3.68	9.68	8.17	4.52
			Sensible	1.95	1.44	1.23	2.68	2.07	1.51	3.29	2.58	2.06	5.10	3.82	2.33	6.18	5.12	2.84
	5	7	Total	2.01	1.53	1.37	3.48	2.63	1.96	3.45	2.64	1.97	6.48	4.74	2.50	7.99	6.76	3.31
			Sensible	1.62	1.20	1.04	2.37	1.78	1.30	2.63	1.99	1.53	4.42	3.24	1.82	5.44	4.50	2.32
	5	9	Total	1.41	1.07	0.98	2.58	1.91	1.42	1.60	1.36	1.14	4.44	2.96	1.47	5.85	5.03	1.99
			Sensible	1.34	1.00	0.89	1.96	1.46	1.06	1.60	1.33	1.11	3.55	2.45	1.33	4.52	3.76	1.71
	7	3	Total	2.95	2.24	1.94	4.03	3.18	2.37	5.08	4.09	3.34	7.95	6.04	3.81	9.55	8.02	4.57
			Sensible	1.99	1.48	1.26	2.62	2.03	1.49	3.35	2.64	2.14	5.06	3.80	2.39	6.11	5.04	2.86
	7	5	Total	2.21	1.67	1.47	3.42	2.67	1.97	3.93	3.14	2.49	6.56	4.92	2.93	7.93	6.73	3.63
			Sensible	1.70	1.25	1.07	2.36	1.81	1.31	2.85	2.23	1.77	4.47	3.32	2.01	5.42	4.48	2.46
	7	7	Total	1.51	1.14	1.02	2.67	2.02	1.50	2.16	1.71	1.29	4.90	3.46	1.74	6.14	5.23	2.30
			Sensible	1.41	1.05	0.91	2.01	1.51	1.10	2.01	1.57	1.22	3.76	2.71	1.48	4.65	3.84	1.88
	7	9	Total	1.13	0.85	0.75	1.72	1.25	0.99	1.18	1.07	0.91	2.92	2.01	1.10	3.96	3.34	1.40
			Sensible	1.13	0.85	0.74	1.54	1.14	0.86	1.18	1.07	0.91	2.71	1.90	1.08	3.57	2.92	1.35
	9	3	Total	2.34	1.78	1.54	3.28	2.58	1.94	4.08	3.30	2.68	6.45	4.89	3.07	7.75	6.54	3.71
			Sensible	1.75	1.30	1.10	2.30	1.78	1.30	2.93	2.30	1.85	4.42	3.31	2.07	5.35	4.40	2.49
	9	5	Total	1.60	1.20	1.04	2.67	2.06	1.52	2.88	2.28	1.71	5.06	3.74	2.03	6.18	5.24	2.72
			Sensible	1.47	1.09	0.91	2.03	1.54	1.11	2.39	1.86	1.42	3.83	2.83	1.63	4.68	3.86	2.08
	9	7	Total	1.19	0.90	0.76	1.83	1.36	1.00	1.50	1.20	0.94	3.39	2.27	1.21	4.36	3.72	1.57
			Sensible	1.19	0.90	0.76	1.61	1.21	0.88	1.50	1.20	0.94	3.05	2.08	1.16	3.85	3.19	1.47
	9	9	Total	0.85	0.65	0.61	1.16	0.90	0.71	0.89	0.82	0.71	2.00	1.39	0.85	2.63	2.28	1.02
			Sensible	0.85	0.65	0.61	1.15	0.89	0.69	0.89	0.82	0.71	2.00	1.39	0.85	2.62	2.22	1.02
	11	3	Total	1.70	1.28	1.12	2.53	1.99	1.49	3.10	2.49	2.00	4.93	3.74	2.30	5.95	5.03	2.80
			Sensible	1.50	1.11	0.94	1.99	1.53	1.11	2.51	1.96	1.57	3.79	2.83	1.75	4.61	3.78	2.12
	11	5	Total	1.24	0.93	0.79	1.86	1.40	1.04	1.91	1.45	1.11	3.56	2.58	1.37	4.43	3.74	1.76
			Sensible	1.24	0.93	0.78	1.66	1.24	0.90	1.87	1.42	1.10	3.18	2.33	1.28	3.92	3.22	1.61
	11	7	Total	0.91	0.69	0.62	1.25	0.91	0.70	0.97	0.84	0.72	2.22	1.56	0.86	2.99	2.44	1.10
			Sensible	0.91	0.69	0.62	1.24	0.91	0.69	0.97	0							

Cooling capacities in kW, four-pipe coil (continued)

EAT	EWT	Δt	Size	200			300			400			600			701		
EAT	EWT	Δt	Speed N°	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		K	Size	209			309			409			609			709		
		K	Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2	9	6	2
19°C wb/ 27°C db	5	3	Total	3.53	2.67	2.30	4.73	3.73	2.77	6.03	4.84	3.95	9.34	7.09	4.47	11.22	9.39	5.36
			Sensible	2.54	1.89	1.60	3.30	2.56	1.86	4.25	3.34	2.70	6.37	4.79	3.01	7.70	6.33	3.60
	5	5	Total	2.83	2.13	1.86	4.17	3.26	2.43	5.00	3.99	3.19	8.05	6.08	3.69	9.74	8.20	4.53
			Sensible	2.25	1.66	1.41	3.04	2.34	1.70	3.78	2.95	2.36	5.79	4.33	2.65	7.03	5.79	3.22
	5	7	Total	2.12	1.59	1.37	3.56	2.69	2.00	3.67	2.84	2.14	6.65	4.88	2.59	8.19	6.92	3.44
			Sensible	1.96	1.45	1.22	2.75	2.06	1.50	3.15	2.40	1.86	5.15	3.78	2.15	6.32	5.20	2.73
	5	9	Total	1.70	1.24	1.11	2.72	2.03	1.50	2.20	1.76	1.37	5.01	3.38	1.77	6.36	5.41	2.34
			Sensible	1.70	1.24	1.08	2.33	1.74	1.27	2.20	1.75	1.37	4.38	3.02	1.68	5.48	4.53	2.14
	7	3	Total	2.95	2.24	1.94	4.02	3.18	2.37	5.09	4.09	3.34	7.94	6.03	3.81	9.54	8.01	4.56
			Sensible	2.30	1.70	1.45	2.98	2.31	1.68	3.83	3.00	2.43	5.74	4.31	2.70	6.95	8.01	4.56
	7	5	Total	2.20	1.65	1.45	3.50	2.70	2.00	4.10	3.25	2.60	6.70	5.00	3.00	8.08	6.80	3.80
			Sensible	2.00	1.48	1.27	2.70	2.10	1.50	3.30	2.60	2.05	5.10	3.80	2.20	6.29	5.20	2.70
	7	7	Total	1.73	1.29	1.15	2.79	2.10	1.56	2.70	2.08	1.58	5.22	3.78	1.99	6.48	5.48	2.58
			Sensible	1.73	1.27	1.10	2.38	1.79	1.30	2.61	2.00	1.55	4.51	3.29	1.82	5.57	4.57	2.30
	7	9	Total	1.43	1.08	0.97	2.06	1.51	1.13	1.71	1.39	1.14	3.74	2.59	1.39	4.94	4.09	1.81
			Sensible	1.43	1.08	0.97	1.95	1.44	1.07	1.71	1.39	1.14	3.57	2.51	1.39	4.68	3.80	1.78
	9	3	Total	2.34	1.78	1.54	3.31	2.60	1.95	4.15	3.34	2.71	6.49	4.92	3.09	7.82	6.58	3.73
			Sensible	2.05	1.52	1.28	2.67	2.05	1.49	3.41	2.67	2.15	5.11	3.82	2.38	6.20	5.08	2.87
	9	5	Total	1.79	1.34	1.17	2.76	2.13	1.56	3.11	2.47	1.88	5.26	3.89	2.23	6.41	5.43	2.85
			Sensible	1.77	1.31	1.12	2.39	1.82	1.30	2.89	2.25	1.75	4.55	3.36	1.99	5.56	4.56	2.48
	9	7	Total	1.49	1.11	0.98	2.10	1.57	1.15	2.09	1.63	1.26	4.03	2.81	1.53	5.05	4.24	1.97
			Sensible	1.49	1.11	0.98	1.99	1.49	1.08	2.09	1.63	1.26	3.85	2.69	1.51	4.80	3.95	1.91
	9	9	Total	1.16	0.88	0.79	1.58	1.16	0.89	1.23	1.09	0.92	2.84	1.99	1.10	3.73	3.07	1.41
			Sensible	1.16	0.88	0.79	1.58	1.16	0.89	1.23	1.09	0.92	2.84	1.99	1.10	3.73	3.04	1.41
	11	3	Total	1.83	1.37	1.18	2.61	2.04	1.53	3.24	2.59	2.08	5.07	3.83	2.36	6.13	5.16	2.88
			Sensible	1.81	1.34	1.14	2.35	1.80	1.30	2.99	2.33	1.87	4.50	3.35	2.07	5.47	4.47	2.50
	11	5	Total	1.53	1.14	0.99	2.11	1.57	1.15	2.44	1.86	1.43	4.06	2.98	1.67	5.01	4.17	2.13
			Sensible	1.53	1.14	0.99	2.04	1.51	1.10	2.44	1.85	1.43	3.92	2.87	1.63	4.83	3.96	2.06
	11	7	Total	1.21	0.91	0.81	1.63	1.21	0.89	1.58	1.25	0.97	3.13	2.15	1.20	3.99	3.31	1.53
			Sensible	1.21	0.91	0.81	1.63	1.21	0.89	1.58	1.25	0.97	3.13	2.15	1.20	3.99	3.29	1.53
	11	9	Total	0.88	0.67	0.62	1.19	0.91	0.70	0.91	0.83	0.72	2.08	1.45	0.86	2.73	2.32	1.03
			Sensible	0.88	0.67	0.62	1.19	0.91	0.70	0.91	0.83	0.72	2.08	1.45	0.86	2.73	2.32	1.03
	13	3	Total	1.56	1.15	0.99	2.01	1.54	1.12	2.55	1.97	1.57	3.93	2.92	1.78	4.79	3.95	2.17
			Sensible	1.56	1.15	0.99	2.00	1.53	1.09	2.55	1.97	1.57	3.88	2.88	1.76	4.74	3.87	2.14
	13	5	Total	1.25	0.94	0.82	1.66	1.24	0.90	1.93	1.45	1.13	3.25	2.36	1.31	4.03	3.32	1.64
			Sensible	1.25	0.94	0.82	1.66	1.24	0.90	1.93	1.45	1.13	3.25	2.36	1.31	4.03	3.32	1.64
	13	7	Total	0.93	0.70	0.63	1.27	0.93	0.70	1.05	0.87	0.73	2.28	1.61	0.88	3.07	2.45	1.13
			Sensible	0.93	0.70	0.63	1.27	0.93	0.70	1.05	0.87	0.73	2.28	1.61	0.88	3.07	2.45	1.13
	13	9	Total	0.59	0.49	0.47	0.83	0.65	0.52	0.63	0.60	0.52	1.30	0.94	0.63	1.75	1.55	0.75
			Sensible	0.59	0.49	0.47	0.83	0.65	0.52	0.63	0.60	0.52	1.30	0.94	0.63	1.75	1.55	0.75
21°C wb/ 29°C db	5	3	Total	4.38	3.31	2.84	5.78	4.54	3.38	7.42	5.95	4.86	11.41	8.67	5.49	13.70	11.45	6.57
			Sensible	2.80	2.08	1.77	3.61	2.80	2.05	4.66	3.68	2.98	6.99	5.27	3.32	8.44	6.96	3.97
	5	5	Total	3.68	2.79	2.42	5.21	4.09	3.05	6.40	5.15	4.16	10.16	7.70	4.78	12.24	10.30	5.81
			Sensible	2.51	1.86	1.58	3.37	2.60	1.90	4.23	3.33	2.68	6.45	4.84	3.01	7.81	6.45	3.63
	5	7	Total	2.89	2.19	1.93	4.56	3.56	2.61	5.13	4.10	3.19	8.74	6.50	3.80	10.58	8.98	4.78
			Sensible	2.20	1.62	1.39	3.09	2.37	1.71	3.68	2.87	2.26	5.84	4.33	2.58	7.10	5.88	3.19
	5	9	Total	2.13	1.59	1.41	3.84	2.90	2.16	3.28	2.60	1.89	7.06	5.11	2.53	8.79	7.47	3.40
			Sensible	1.92	1.42	1.20	2.76	2.07	1.50	2.84	2.21	1.69	5.12	3.74	2.05	6.33	5.23	2.62
	7	3	Total	3.79	2.87	2.48	5.06	3.99	2.98	6.47	5.21	4.25	10.02	7.62	4.82	12.02	10.08	5.78
			Sensible	2.55	1.89	1.61	3.30	2.55	1.87	4.25	3.35	2.71	6.37	4.80	3.02	7.70	6.34	3.61
	7	5	Total	3.08	2.32	2.02	4.46	3.50	2.62	5.42	4.35	3.50	8.66	6.56	4.03	10.45	8.82	4.92
			Sensible	2.27	1.67	1.43	3.05	2.35	1.71	3.82	2.99	2.39	5.81	4.35	2.68	7.05	5.80	3.25
	7	7	Total	2.22	1.69	1.51	3.82	2.95	2.17	4.09	3.25	2.43	7.23	5.34	2.94	8.83	7.49	3.88
			Sensible	1.95	1.44	1.23	2.76	2.10	1.51	3.24	2.52	1.93	5.20	3.84	2.23	6.36	5.25	2.82
	7	9	Total	1.72	1.30	1.17	2.98	2.25	1.67	2.36	1.88	1.44	5.44	3.74	1.91	6.87	5.87	2.56
			Sensible	1.68	1.25	1.09	2.38	1.79	1.30	2.32	1.83	1.41	4.46	3.15	1.72	5.55	4.57	2.21
	9	3	Total	3.17	2.41	2.08	4.30	3.40	2.55	5.46	4.40	3.60	8.53	6.49	4.11	10.23	8.61	4.92
			Sensible	2.30	1.71	1.45	2.99	2.31	1.68	3.84	3.01	2.44	5.75	4.32	2.71	6.95	5.71	3.25
	9	5	Total	2.41	1.82	1.60	3.71	2.91	2.17	4.40	3.53	2.81	7.16	5.41	3.27	8.66	7.32	4.02
			Sensible	2.02	1.49	1.26	2.73	2.10	1.52	3.39	2.64	2.11	5.18	3.87	2.36	6.30	5.18	2.88
	9	7	Total	1.80	1.36	1.20	3.05	2.29	1.71	3.00	2.28	1.71	5.63	4.10	2.17	6.96	5.91	2.83
			Sensible	1.74	1.29	1.11	2.43	1.82	1.32	2.74	2.07	1.60	4.55	3.34	1.88	5.60	4.60	2.37
	9	9	Total	1.47	1.10	0.98	2.19	1.62	1.19	1.83	1.46	1.16	4.02	2.74	1.46	5.19	4.43	1.91
			Sensible	1.47	1.10	0.98	1.99	1.48	1.08	1.83	1.46	1.16	3.73	2.57	1.43	4.75	3.94	1.82
	11	3	Total	2.52	1.92	1.67	3.52	2.79	2.09	4.44	3.59	2.92	6.96	5.29	3.34	8.36	7.06	4.01

Heating capacities in kW, four-pipe coil

EAT	EWT	Δt	Size	200			300			400			600			701		
EAT	EWT	Δt	Speed N°	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
EAT	EWT	Δt	Size	209			309			409			609			709		
EAT	EWT	Δt	Ctrl V	10	6	2	10	6	2	10	6	2	10	6	2	10	6	2
19	50	5	Total	1.21	0.92	0.79	4.10	3.28	2.31	4.39	3.73	3.21	7.33	5.67	3.82	9.24	7.32	4.64
	50	10	Total	1.01	0.77	0.67	2.79	2.24	1.51	2.87	2.57	2.21	5.89	4.58	3.13	7.55	6.01	3.88
	60	5	Total	1.67	1.26	1.08	5.89	4.67	3.26	6.36	5.34	4.56	10.22	7.87	5.26	12.86	10.16	6.39
	60	10	Total	1.48	1.13	0.97	4.72	3.83	2.68	4.99	4.33	3.75	8.86	6.89	4.66	11.21	8.91	5.71
	70	5	Total	2.13	1.61	1.38	7.69	6.06	4.22	8.35	6.96	5.91	13.11	10.07	6.70	16.47	13.00	8.13
	70	10	Total	1.95	1.47	1.27	6.54	5.24	3.69	6.99	5.96	5.13	11.78	9.12	6.14	14.87	11.78	7.48
	80	5	Total	2.60	1.96	1.68	9.49	7.45	5.17	10.34	8.58	7.27	16.00	12.27	8.14	20.09	15.84	9.86
	80	10	Total	2.41	1.82	1.57	8.36	6.65	4.66	8.99	7.60	6.51	14.70	11.34	7.60	18.52	14.65	9.23
20	50	5	Total	1.16	0.88	0.76	3.93	3.14	2.21	4.20	3.58	3.08	7.05	5.45	3.67	8.89	7.04	4.47
	50	10	Total	0.97	0.74	0.64	2.61	2.08	1.42	2.68	2.38	2.05	5.60	4.35	2.98	7.20	5.72	3.70
	60	5	Total	1.63	1.23	1.05	5.72	4.53	3.17	6.17	5.19	4.43	9.93	7.65	5.12	12.50	9.88	6.21
	60	10	Total	1.44	1.09	0.94	4.56	3.69	2.58	4.81	4.18	3.61	8.58	6.68	4.52	10.86	8.63	5.54
	70	5	Total	2.09	1.58	1.35	7.52	5.92	4.12	8.16	6.80	5.78	12.82	9.85	6.56	16.11	12.72	7.95
	70	10	Total	1.90	1.44	1.24	6.37	5.10	3.60	6.80	5.80	5.00	11.50	8.90	6.00	14.51	11.50	7.30
	80	5	Total	2.55	1.92	1.65	9.32	7.31	5.08	10.15	8.42	7.14	15.71	12.05	8.00	19.73	15.55	6.69
	80	10	Total	2.37	1.79	1.54	8.19	6.52	4.57	8.81	7.44	6.37	14.42	11.12	7.45	18.16	14.36	9.05
21	50	5	Total	1.12	0.85	0.73	3.75	3.01	2.12	4.02	3.42	2.95	6.76	5.24	3.53	8.53	6.76	4.30
	50	10	Total	0.92	0.71	0.61	2.40	1.92	1.34	2.45	2.19	1.89	5.30	4.13	2.83	6.84	5.43	3.52
	60	5	Total	1.58	1.19	1.03	5.54	4.40	3.07	5.98	5.03	4.30	9.65	7.43	4.97	12.14	9.60	6.04
	60	10	Total	1.39	1.06	0.91	4.39	3.55	2.48	4.63	4.03	3.48	8.30	6.46	4.37	10.50	8.35	5.36
	70	5	Total	2.04	1.54	1.32	7.34	5.79	4.03	7.96	6.65	5.65	12.54	9.63	6.41	15.75	12.43	7.77
	70	10	Total	1.86	1.41	1.21	6.20	4.97	3.51	6.62	5.65	4.87	11.22	8.68	5.86	14.15	11.22	7.13
	80	5	Total	2.50	1.89	1.62	9.14	7.18	4.98	9.96	8.26	7.00	15.42	11.83	7.85	19.37	15.27	9.51
	80	10	Total	2.32	1.76	1.51	8.01	6.38	4.47	8.62	7.29	6.24	14.13	10.90	7.31	17.80	14.08	8.88

Legend
EAT Entering air temperature, °C
EWT Entering water temperature, °C
Δt Water temperature rise, °C
Total Total heating capacity, kW

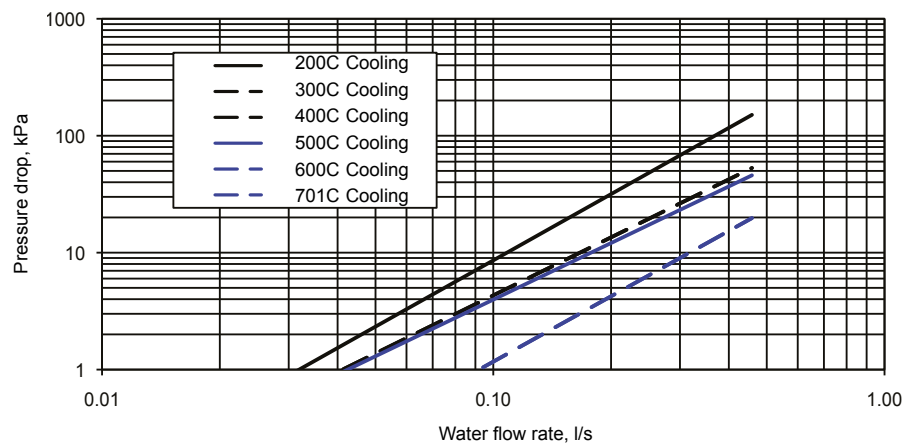
Global sound data

	AC motor speed	EC motor speed	Global sound power levels					Lw	Lp Sound pressure*	NR*
			125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	dB(A)	dB(A)	
42GW200/9	1	10V	50	51	49	43	35	49	40	35
	2	6V	43	44	40	31	24	40	31	27
	3	2V	40	38	37	25	21	36	27	23
42GW300/9	1	10V	55	54	53	48	40	53	44	39
	2	6V	45	46	44	37	30	44	35	30
	3	2V	38	38	33	27	26	35	26	20
42GW400/9	1	10V	60	56	56	52	44	57	48	43
	2	6V	52	50	48	42	34	48	39	34
	3	2V	46	44	42	35	28	42	33	28
42GW500/9	1	10V	52	53	48	41	32	49	40	35
	2	6V	44	44	39	33	24	40	31	26
	3	2V	41	39	33	28	21	35	26	21
42GW600/9	1	10V	55	57	52	47	40	54	45	40
	2	6V	49	50	45	39	32	46	37	32
	3	2V	46	41	34	29	27	38	29	22
42GW701	1		63	61	58	53	47	59	50	45
	2		55	56	51	45	38	52	43	38
	3		47	44	38	31	28	40	31	25
42GW709		10V	61	63	60	55	49	61	52	47
		6V	55	56	51	45	38	52	43	38
		2V	47	44	38	31	28	40	31	25

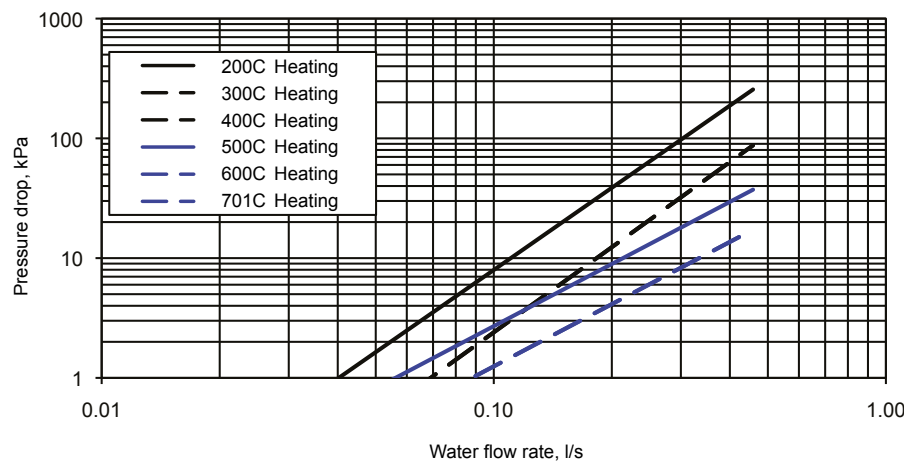
*Sound pressure level and NR values are based on a hypothetical sound attenuation for the room of -9 dB(A).

Coil pressure drops

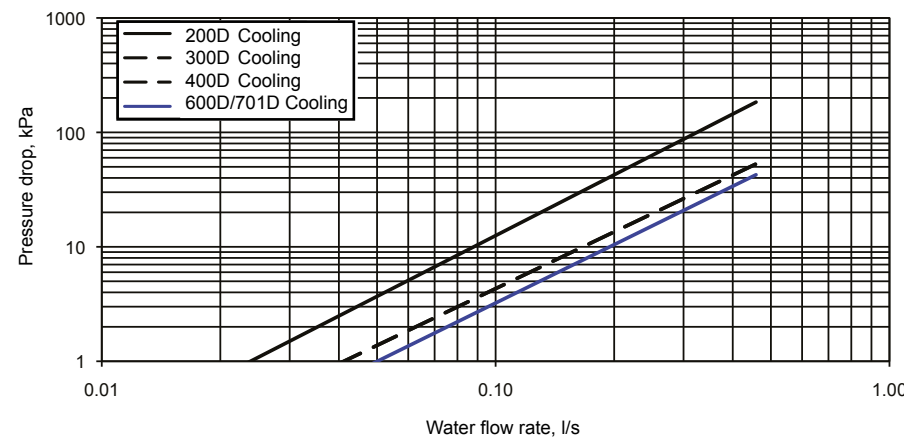
Two-pipe units, cooling



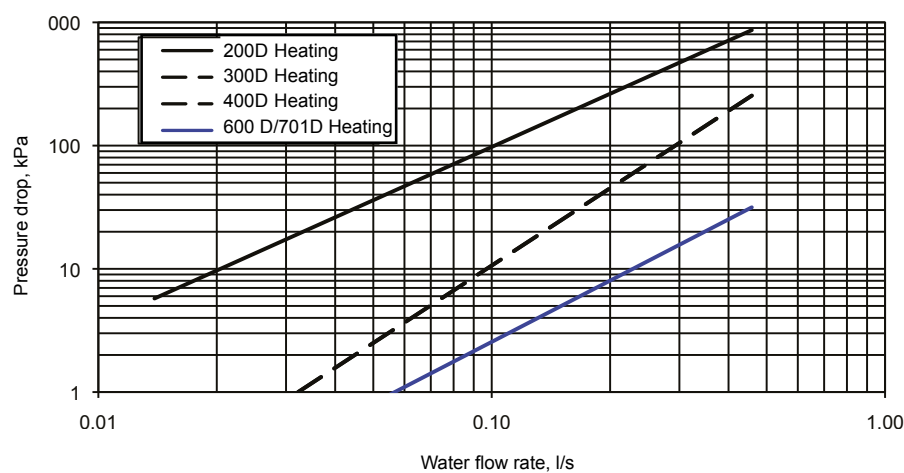
Two-pipe units, heating



Four-pipe units, cooling



Four-pipe units, heating



Coil water content

42GW	200/209	300/309	400/409	500/509	600/609	701/709
Water content	0.55	1.1	1.1	1.6	2.4	2.4

Air throw, m

42GW	Louvres all open			One louvre closed			Two louvres closed		
	High speed	Medium speed	Low speed	High speed	Medium speed	Low speed	High speed	Medium speed	Low speed
200/209	3.8	3.2	2.7	4.3	3.7	3.0	4.8	4.1	3.4
300/309	4.0	3.4	2.8	4.5	3.8	3.2	5.0	4.3	3.5
400/409	4.8	4.1	3.4	5.3	4.5	3.7	5.8	4.9	4.1
500/509	3.0	2.6	2.1	3.5	3.0	2.5	4.0	3.4	2.8
600/609	3.4	2.9	2.4	3.9	3.3	2.7	4.4	3.7	3.1
701/709	4.3	3.7	3.0	4.8	4.1	3.4	5.3	4.5	3.7

Notes:

1. The louvres were adjusted to use the Coanda effect to obtain an air flow pattern that adheres as closely as possible and parallel to the ceiling.
2. The air throw is defined as the distance at which air flow speed falls to 0.2 m/s, when the air flow leaves the unit parallel to the ceiling.
3. The values are to be considered as indicative, as they may vary according to the type of ceiling, room dimensions and even the furniture used.

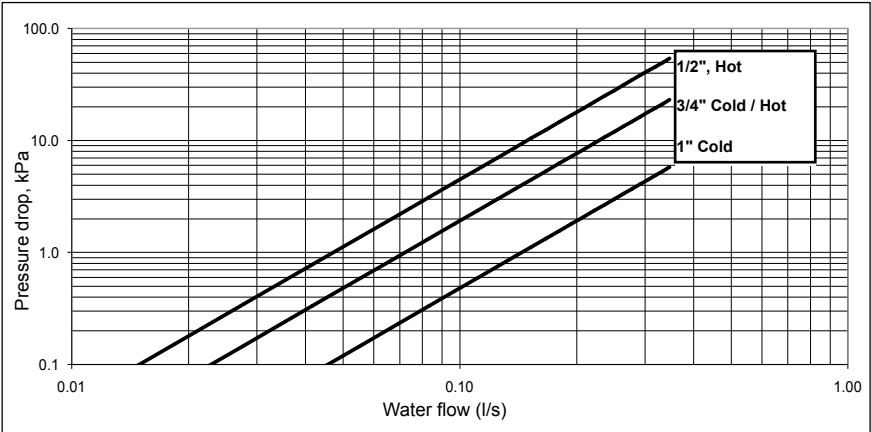
Operating limits

Water circuit	Maximum water-side pressure: 1400 kPa (142 m WG)	Minimum entering water temperature: 5°C Maximum entering water temperature: 80°C
Indoor temperature		Minimum temperature: 5°C Maximum temperature: 32°C for units with electric heaters
Power supply	Nominal operating limits	230 V - 1 ph - 50/60 Hz Min.207 - Max.253 V for units without electric heaters Min.216 - Max.244 V for units with electric heaters

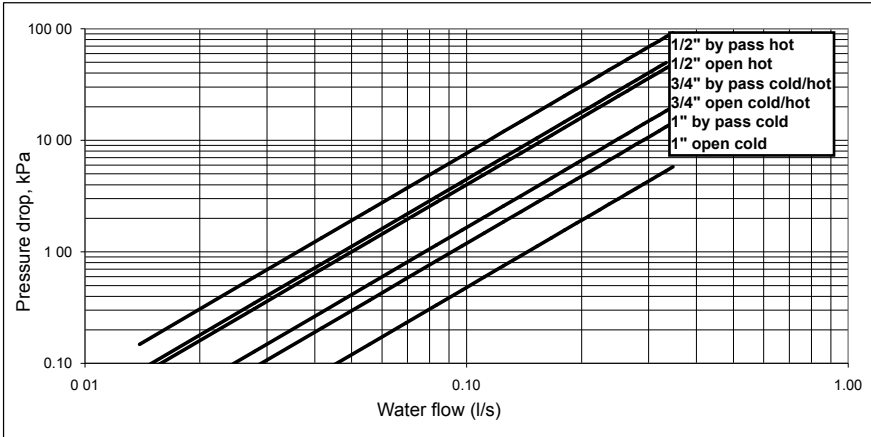
Valve kit

Valve kit	42GW 9029	42GW 9031	42GW 9030	42GW 9032	42GW 9033	42GW 9035	42GW 9034	42GW 9036
Unit option (10th digit)	H - 4 ways	H - 4 ways	H - 4 ways	H - 4 ways	G - 2 ways	G - 2 ways	G - 2 ways	G - 2 ways
Description	3/4" cold	1" cold	3/4" cold + 1/2" hot	1" cold + 3/4" hot	3/4" cold	1" cold	3/4" cold + 1/2" hot	1" cold + 3/4" hot
Valve pitch, mm	40	73	40/40	73/40	40	73	40/40	73/40
Valve face	Flat	Flat	Flat	Flat	Flat	Flat	Flat	Flat
2 pipes								
200C, 300C, 400C	x				x			
209C, 309C, 409C	x				x			
500C, 600C, 701C		x				x		
509C, 609C, 709C		x				x		
4 pipes								
200D, 300D, 400D			x				x	
209D, 309D, 409D			x				x	
600D, 701D				x				x
609D, 709D				x				x

2-way valve pressure drop



3-way valve pressure drop





Order No.: 14202-20, 04.2017 Supersedes order No.: 14202-20, 10.2013
Manufacturer reserves the right to change any product specifications without notice.



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